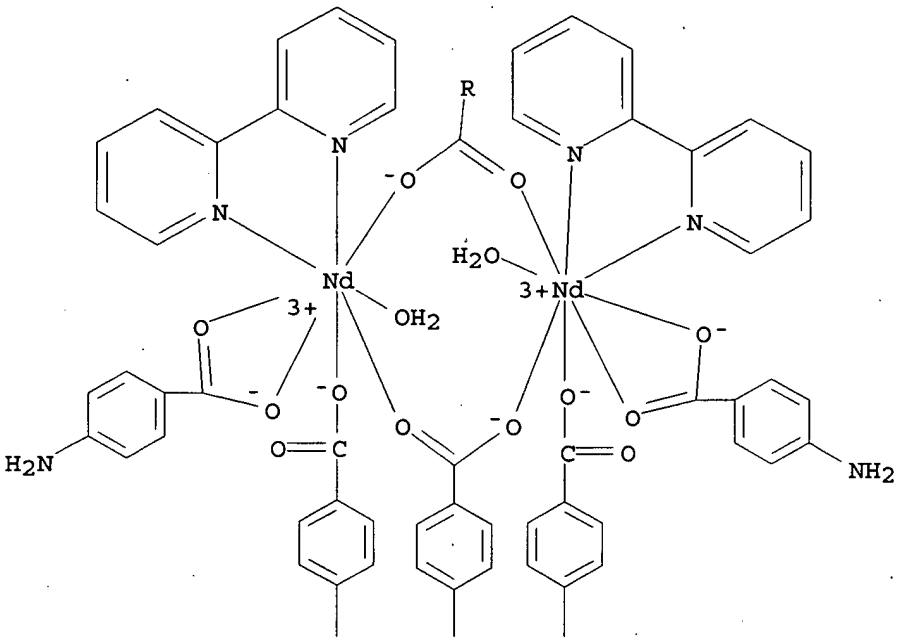
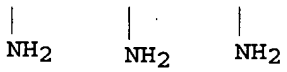
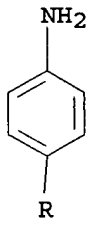
(CA INDEX NAME)

PAGE 1-A



PAGE 2-A



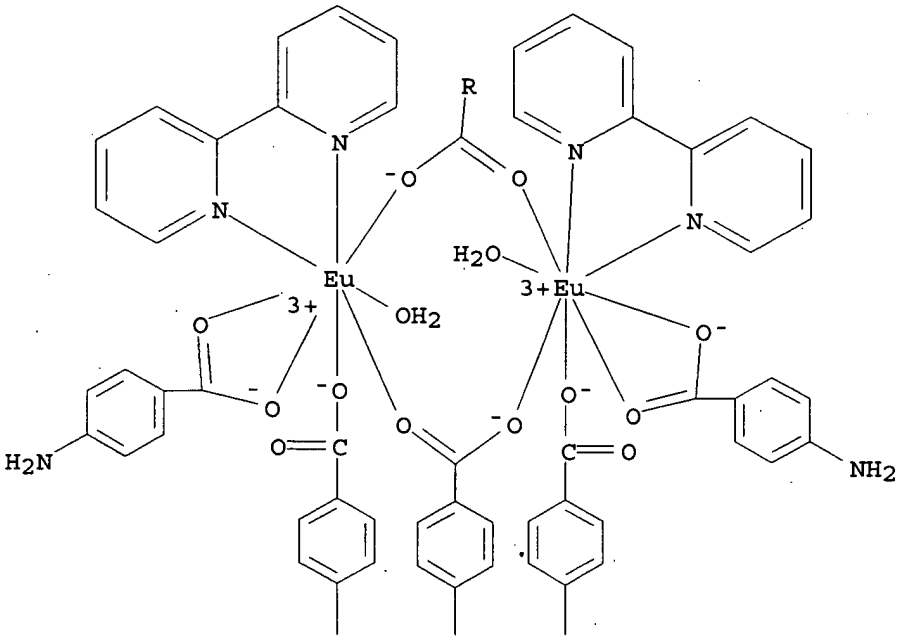


●2 H_2O

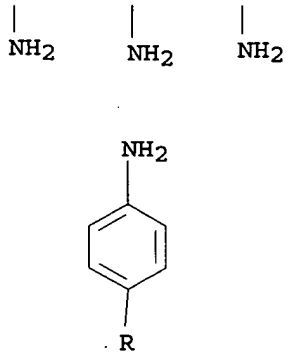
IT **172917-91-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure, **fluorescence** and Raman spectra of)

RN 172917-91-8 CAPLUS
CN Europium, bis[.mu.-(4-aminobenzoato-O:O')]bis(4-aminobenzoato-O)bis(4-aminobenzoato-O,O')diaquabis(2,2'-bipyridine-N,N')di-, dihydrate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



●2 H_2O

CC 78-7 (Inorganic Chemicals and Reactions)

KOROMA EIC1700

Section cross-reference(s): 73, 75

ST crystal structure lanthanide aminobenzoate bipyridine complex; rare earth aminobenzoate bipyridine complex prepn; neodymium aminobenzoate bipyridine complex prepn structure; europium aminobenzoate bipyridine complex prepn structure; ytterbium aminobenzoate bipyridine complex prepn structure; Raman neodymium europium aminobenzoate bipyridine complex; fluorescence europium aminobenzoate bipyridine complex

IT Rare earth compounds
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(aminobenzoate bipyridine complexes; prepn. and crystal structure of)

IT Fluorescence
(of europium aminobenzoate bipyridine complex)

IT Raman spectra
(of europium and neodymium aminobenzoate bipyridine complexes)

IT Crystal structure
Molecular structure
(of rare earth aminobenzoate bipyridine complexes)

IT 150-13-0, 4-Aminobenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of rare earth aminobenzoate bipyridine complexes)

IT **172917-92-9P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

IT **172917-90-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and Raman spectrum of)

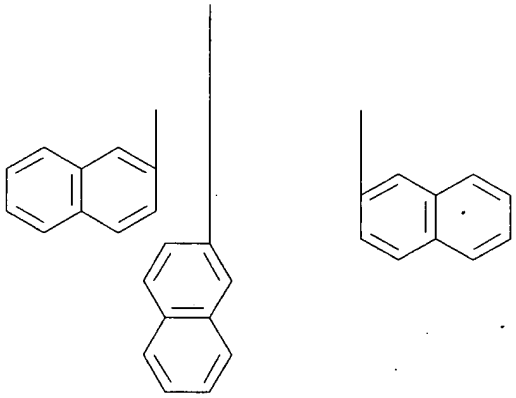
IT **172917-91-8P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure, **fluorescence** and Raman spectra of)

L30 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:686148 CAPLUS
DOCUMENT NUMBER: 123:213856
TITLE: Crystal structure and spectra of Eu(.beta.-NMA)3(PHEN)
AUTHOR(S): Li, Lin-Shu; Wang, Rui-Fen; Jin, Lin-Pei; Cai, Guan-Liang
CORPORATE SOURCE: Department Chemistry, Hebei Teachers' College, Shijiazhuang, 050091, Peop. Rep. China
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1995), 16(4), 500-4
CODEN: KTHPDM; ISSN: 0251-0790
PUBLISHER: Gaodeng Jiaoyu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The title compd., where HNMA = naphthylformic acid and PHEN = phenanthroline, is triclinic, space group P.hivin.1, a 1.1718(2), b 1.5670(3), c 1.0002(2) nm; .alpha. 99.97(1), .beta. 90.12(1), .gamma. 98.36(2).degree.;, Z = 2, dc = 1.5; R = 0.040 for 4961 reflections. At. coordinates are given. The Eu(III) ion is octacoordinated with six O atom of three .beta.-NMA mols. and two N atoms of PHEN, giving the square antiprism with C1 site symmetry for the Eu(III) ion. Laser Raman and **fluorescence** spectra were also obtained.

IT **168098-23-5**
RL: PRP (Properties)
(crystal structure and spectra of)
RN 168098-23-5 CAPLUS
CN Europium, tetrakis[.mu.-(2-naphthalenecarboxylato-O:O')]bis(2-naphthalenecarboxylato-O,O')bis(1,10-phenanthroline-N1,N10)di-, stereoisomer (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *



PAGE 2-A

CC 75-8 (Crystallography and Liquid Crystals)
Section cross-reference(s): 73, 78
ST mol structure europium naphthylformato phenanthroline
IT Crystal structure
Fluorescence
Molecular structure
Raman spectra
(of europium naphthylformato phenanthroline complex)
IT **168098-23-5**
RL: PRP (Properties)
(crystal structure and spectra of)

L30 ANSWER 15 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:607966 CAPLUS
DOCUMENT NUMBER: 123:178583
TITLE: Regulating wastewater treatment agent dosage based on operational system stresses
INVENTOR(S): Hoots, John E.; Godfrey, Martin R.
PATENT ASSIGNEE(S): Nalco Chemical Co., USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5411889	A	19950502	US 1994-194679	19940214
CN 1113569	A	19951220	CN 1994-113468	19941215
CN 1080882	B	20020313		
CA 2142415	AA	19950815	CA 1995-2142415	19950213
BR 9500623	A	19951017	BR 1995-623	19950213
JP 07251182	A2	19951003	JP 1995-25161	19950214
EP 730152	A2	19960904	EP 1995-103061	19950303
EP 730152	A3	19970730		
EP 730152	B1	20020918		
R: DE, ES, FR, GB, IT				
ES 2182853	T3	20030316	ES 1995-103061	19950303

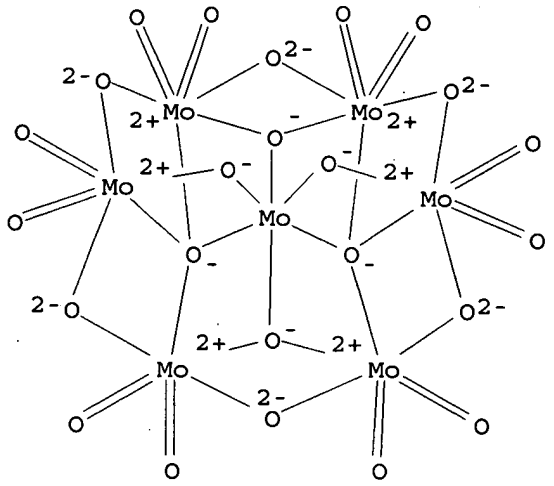
PRIORITY APPLN. INFO.: US 1994-194679 A 19940214
EP 1995-103061 A 19950303

AB A target-specie responsive regulation of water treatment agent feed is achieved by the monitoring of a subject target-specie indicator. A target specie in a sample taken from the system is selected as the subject target-specie indicator, or instead an incipient reagent is added to the system sample to form a subject target-specie indicator. Such a formed subject target-specie indicator comprises a combination of the incipient reagent and a target specie. The subject target-specie indicator may be then monitored by fluorescence anal. of the sample to det. at least one fluorescence emission value that can be correlated to the in-system concn. of the target specie. In combination with an inert tracer, the system consumption for the target specie can be detd. A responsive adjustment of the in-system concn. of a water treatment agent can be made.

IT **12027-67-7**, Ammonium molybdate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in **fluorescent** reagent soln.; regulating wastewater treatment agent dosage based on operational system stresses)

RN 12027-67-7 CAPLUS

CN Molybdate (Mo7O246-), hexaammonium (9CI) (CA INDEX NAME)



●6 NH_4^+

IC ICM G01N021-64
NCL 436006000
CC 60-2 (Waste Treatment and Disposal)
ST wastewater treatment agent dosage control
IT Wastewater treatment
(regulating wastewater treatment agent dosage based on operational system stresses)
IT 7439-89-6, Iron, analysis
RL: ANT (Analyte); ANST (Analytical study)
(divalent; regulating wastewater treatment agent dosage based on operational system stresses)
IT 7647-01-0, Hydrochloric acid, uses 7664-93-9, Sulfuric acid, uses 7778-50-9, Potassium dichromate 7803-55-6, Ammonium metavanadate **12027-67-7**, Ammonium molybdate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(in **fluorescent** reagent soln.; regulating wastewater treatment agent dosage based on operational system stresses)
IT 66-71-7, 1,10-Phenanthroline 99-98-9, N,N-Dimethyl-p-phenylenediamine 150-13-0, 4-Aminobenzoic acid 26651-23-0, 1-Pyrenesulfonic acid 63451-34-3, 2,2'-Biquinoline-4,4'-**dicarboxylic** acid, dipotassium salt
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(incipient reagent; regulating wastewater treatment agent dosage based on operational system stresses)
IT 3812-32-6, Carbonate, analysis 7439-95-4, Magnesium, analysis 7440-70-2, Calcium, analysis 7492-68-4, Copper carbonate 7783-06-4, Hydrogen sulfide, analysis 14265-44-2, Phosphate, analysis 14808-79-8, Sulfate, analysis 16984-48-8, Fluoride, analysis
RL: ANT (Analyte); ANST (Analytical study)

(regulating wastewater treatment agent dosage based on operational system stresses)

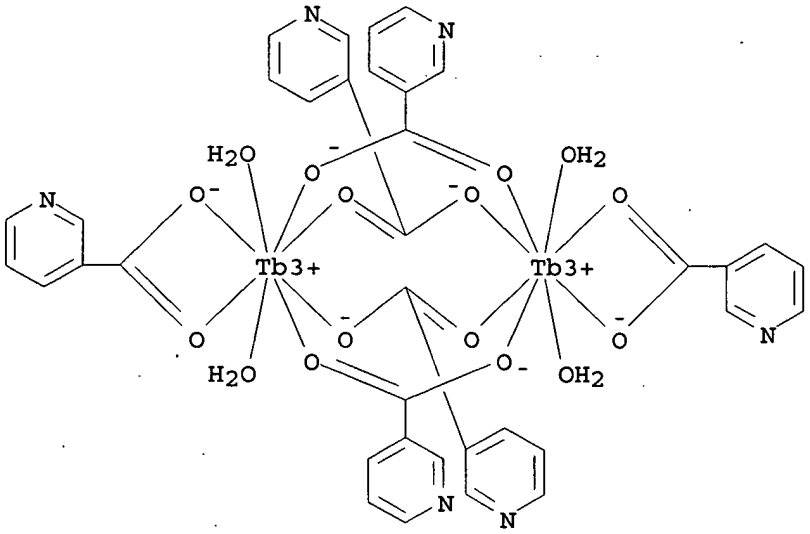
IT 85233-19-8P, 1,2-Bis(o-aminophenoxy)ethane-N,N,N',N'tetraacetic acid
RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)
(regulating wastewater treatment agent dosage based on operational system stresses)

L30 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:523840 CAPLUS
DOCUMENT NUMBER: 121:123840
TITLE: Synthesis and crystal structure of lanthanide complexes with pyridine-3-carboxylic acid
AUTHOR(S): Li, Linshu; Chen, Diangi; Jin, Sinpen
CORPORATE SOURCE: Dept. Chem., Hubei Norm. Univ., Shijiazhuang, 050091, Peop. Rep. China
SOURCE: Zhongguo Xitu Xuebao (1993), 11(2), 101-4
CODEN: ZXXUE5; ISSN: 1000-4343
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB ML3.2H2O (M = Tb, Eu: HL = pyridine-3-carboxylic acid) were prepd. and characterized by IR, **fluorescence** spectra, cond., thermal anal. and x-ray diffraction. TbL3.2H2O is monoclinic, space group P21/c, a 0.9609(6), b 1.1649(3), c 1.7758(8).ANG., .beta. 91.75(5).degree., Z = 2. The Tb complex is a dimer with a twisted dodecahedral structure and Tb has a coordination no. of 8. Four L are bidentate bridging while the other 2 are bidentate chelating and 2 H2O mols. are coordinated to each Tb.

IT **96500-82-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

RN 96500-82-2 CAPLUS
CN Terbium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di- (9CI) (CA INDEX NAME)



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75
ST crystal structure terbium pyridinecarboxylato dimer; pyridinecarboxylato europium terbium complex
IT Crystal structure
Molecular structure
(of terbium pyridinecarboxylato dimeric complex)
IT 59-67-6, Pyridine-3-carboxylic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(complexation of, with europium and terbium)
IT 58855-90-6P **96500-82-2P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)
IT 16468-78-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L30 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:333553 CAPLUS
DOCUMENT NUMBER: 120:333553
TITLE: Waste site reclamation with recovery of radionuclides and metals
INVENTOR(S): Francis, Arokiasamy J.; Dodge, Cleveland J.
PATENT ASSIGNEE(S): Associated Universities, Inc., USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

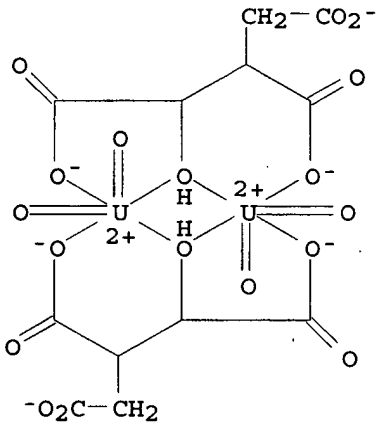
US 5292456	A	19940308	US 1992-855096	19920320
PRIORITY APPLN. INFO.:			US 1992-855096	19920320

AB A method for decontaminating radionuclides and other toxic metal-contaminated soil, sediment, sludge and aquatic media involves treating the contaminated material with a hydroxycarboxylic complexing agent in a soln. The treatment soln. is then treated with a Pseudomonas **fluorescens** ATCC No. 55241 and subjected to photolysis to degrade the complex and recover the radionuclides and metals in a concd. form through pptn. or incorporation into a biomass.

IT **113316-91-9**
RL: PROC (Process)
(biodegrdn. of, in wastes)

RN 113316-91-9 CAPLUS

CN Uranate(2-), bis[.mu.-[3-(carboxy-.kappa.O)-2,3-dideoxypentarato(3-)-.kappa.O4,.kappa.O5]]tetraoxodi-, dihydrogen (9CI) (CA INDEX NAME)



●2 H^+

IC ICM G21F009-16
NCL 252628000
CC 71-11 (Nuclear Technology)
ST waste site reclamation recovery radionuclide metal; radioactive waste treatment hydroxycarboxylic complexing agent; photolytic Pseudomonas **fluorescens** degrdn waste complex; bacterial degrdn citric acid complex waste
IT Photolysis
(degrdn. by, of wastes following treatment with Pseudomonas **fluorescens**)
IT Slimes and Sludges
(degrdn. of, photolytic and bacterial, following hydroxycarboxylic complexing)
IT Pseudomonas **fluorescens**

KOROMA EIC1700

(in degrdn. of wastes, followed by photolysis)
IT Soil pollution
(metals removal from, by photolytic and bacterial degrdn. following hydroxycarboxylic complexing)
IT Radioactive wastes
Waste solids
(treatment of, with hydroxycarboxylic complexing agent followed by photolytic and bacterial degrdn.)
IT Wastewater treatment
(degrdn., with hydroxycarboxylic complexing agent followed by photolysis and bacterial action)
IT 46368-49-4 61918-26-1 **113316-91-9** 146467-70-1 155411-64-6
155411-65-7 155542-70-4 155542-71-5 155542-72-6
RL: PROC (Process)
(biodegrdn. of, in wastes)
IT 50-99-7, Glucose, reactions 126-44-3, Citrate ion, reactions
RL: PRP (Properties)
(degrdn. of, in presence of metal citrate complexes)
IT 7429-90-5, Aluminum, miscellaneous 7439-91-0, Lanthanum, miscellaneous
7439-92-1, Lead, miscellaneous 7439-95-4, Magnesium, miscellaneous
7439-96-5, Manganese, miscellaneous 7440-02-0, Nickel, miscellaneous
7440-03-1, Niobium, miscellaneous 7440-05-3, Palladium, miscellaneous
7440-20-2, Scandium, miscellaneous 7440-22-4, Silver, miscellaneous
7440-24-6, Strontium, miscellaneous 7440-25-7, Tantalum, miscellaneous
7440-29-1, Thorium, miscellaneous 7440-30-4, Thulium, miscellaneous
7440-31-5, Tin, miscellaneous 7440-32-6, Titanium, miscellaneous
7440-36-0, Antimony, miscellaneous 7440-39-3, Barium, miscellaneous
7440-41-7, Beryllium, miscellaneous 7440-43-9, Cadmium, miscellaneous
7440-47-3, Chromium, miscellaneous 7440-48-4, Cobalt, miscellaneous
7440-50-8, Copper, miscellaneous 7440-55-3, Gallium, miscellaneous
7440-57-5, Gold, miscellaneous 7440-58-6, Hafnium, miscellaneous
7440-61-1, Uranium, miscellaneous 7440-62-2, Vanadium, miscellaneous
7440-66-6, Zinc, miscellaneous 7440-67-7, Zirconium, miscellaneous
7440-69-9, Bismuth, miscellaneous
RL: MSC (Miscellaneous)
(extn. efficiency of, from sludge by citric acid)
IT 77-92-9, Citric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(treatment of radioactive and other wastes by complexing with)

L30 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:288531 CAPLUS
DOCUMENT NUMBER: 120:288531
TITLE: Spectroscopic and electrochemical studies on (2-hydroxypicolinate)bis(2,2'-bipyridine)ruthenium(II) and related complexes
AUTHOR(S): Constantino, Vera R. L.; de Oliveira, Luiz F. C.; Santos, Paulo S.; Toma, Henrique E.
CORPORATE SOURCE: Inst. Quim., Univ. Sao Paulo, Sao Paulo, 01498, Brazil
SOURCE: Transition Metal Chemistry (Dordrecht, Netherlands) (1994), 19(1), 103-7
CODEN: TMCHDN; ISSN: 0340-4285

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The synthesis, spectra and electrochem. of [Ru(bipy)2(HpicOH)]+ and {.mu.-picO-[Ru(bipy)2]2}2+ (bipy = 2,2'-bipyridine and picOH = 3-hydroxypicolinic acid, Hpic = picolinic acid) are described. The spectroscopic properties in the visible region are dominated by the intense Ru .fwdarw. bipy charge-transfer transitions. In the binuclear complex, the 2 [Ru(bipy)2L]2+ moieties are nonequiv., exhibiting E1/2 = 0.69 and 1.20 V vs. s.h.e. The partially oxidized species exhibits a weak intervalence transfer band at 1085 nm, and is consistent with a Robin-Day class II mixed valence complex.

IT **154790-38-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclic voltammetry and **fluorescence** and Raman spectra of)

RN 154790-38-2 CAPLUS

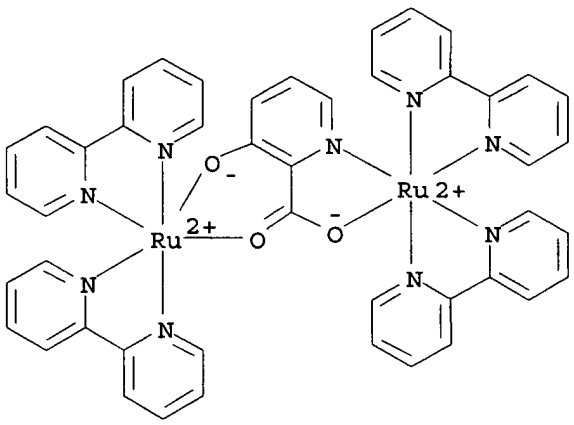
CN Ruthenium(2+), tetrakis(2,2'-bipyridine-N,N')[.mu.-[3-hydroxy-2-pyridinecarboxylato(2-)-N1,O2:O2',O3]]di-, bis[hexafluorophosphate(1-)], trihydrate (9CI) (CA INDEX NAME)

CM 1

CRN 154790-37-1
CMF C46 H35 N9 O3 Ru2 . 2 F6 P

CM 2

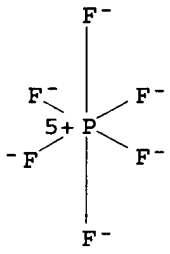
CRN 154790-36-0
CMF C46 H35 N9 O3 Ru2
CCI CCS



CM 3

CRN 16919-18-9

CMF F6 P
CCI CCS



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 72, 73
ST ruthenium bipyridine hydroxypicolinato picolinato mononuclear dinuclear; oxidn potential ruthenium bipyridine hydroxypicolinato picolinato; intervalence transfer ruthenium bipyridine hydroxypicolinato dinuclear; mixed valence ruthenium bipyridine hydroxypicolinato dinuclear
IT **Fluorescence**
(of ruthenium bipyridine hydroxypicolinato and picolinato complexes)
IT Energy transfer
(intervalence, in ruthenium bipyridine hydroxypicolinato dinuclear complex)
IT Electric potential
(oxidn., of ruthenium bipyridine hydroxypicolinato dinuclear complex)
IT Electric potential
(redn., of ruthenium bipyridine hydroxypicolinato and picolinato complexes)
IT Electric potential
(redox, of ruthenium bipyridine hydroxypicolinato and picolinato complexes)
IT 154790-41-7 154790-42-8
RL: PRP (Properties)
(elec. potential of couple contg.)
IT 154790-34-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclic voltammetry and **fluorescence** and Raman spectra and reaction of, with ruthenium bipyridine chloro complex)
IT 154790-35-9P **154790-38-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclic voltammetry and **fluorescence** and Raman spectra of)
IT 154790-40-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 98-98-6, Picolinic acid 874-24-8, 3-Hydroxypicolinic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ruthenium bipyridine chloro complex)
IT 15746-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with ruthenium bipyridine hydroxypicolinato complex)

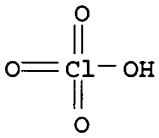
L30 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:109039 CAPLUS
DOCUMENT NUMBER: 112:109039
TITLE: Crystal structure, absorption, and fluorescence spectra of lanthanoid glutamate perchlorate nonahydrates, Ln2(C5H8NO4)2(ClO4)4.cntdot.9H2O
AUTHOR(S): Csoregh, Ingeborg; Czugler, Matyas; Kierkegaard, Peder; Legendziewicz, Janina; Huskowska, Ewa
CORPORATE SOURCE: Dep. Struct. Chem., Univ. Stockholm, Stockholm, S-106 91, Swed.
SOURCE: Acta Chemica Scandinavica (1989), 43(8), 735-47
CODEN: ACHSE7; ISSN: 0904-213X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The title Ho complex is monoclinic, space group P21, with a 11.011(1), b 16.532(1), c 19.907(2) .ANG., and .beta. 103.18(1).degree.; dc = 2.225 for Z = 2 (2 mols./Z). The title Dy complex is monoclinic, space group P21, with a 11.015(1), b 16.560(2), c 19.939(3) .ANG., and .beta. 103.16(1).degree.; dc = 2.208 for Z = 2 (2 mols./Z). The final R values are 0.0515 and 0.0540 for Ho at room and low temp. and 0.0507 for the Dy complex. At. coordinates are given. The Ho and Dy ions in each complex are bridged by 4 **carboxylate** groups so that 2 of the O atoms are coordinated to both cations. The coordination is completed by 4 H2O O atoms around each cation, making the coordination no. 9. The glutamic acid residues link together the lanthanoid ion pairs into infinite layers. In the voids of this matrix are located the ClO4 groups, exhibiting rotational disorder. The abs. configuration of the glutamic acid residues are also confirmed. An absorption spectrum along the c-axis of the Dy complex was recorded at room temp, and the probabilities of the f-f transition were analyzed on the basis of the Judd-Ofelt theory. Solid-state fluorescence spectra of the Nd, Eu and Dy compds. were recorded at 77 K; the results are discussed and Stark components detd. The decay time for the Dy crystal was measured and the fluorescence quenching mechanism discussed.

IT **125361-81-1 125410-99-3**
RL: PRP (Properties)
(absorption and **fluorescence** spectra of)
RN 125361-81-1 CAPLUS
CN Neodymium(2+), octaaquabis[.mu.-[L-glutamato(2-)-.kappa.O1:.kappa.O1']]di-, diperchlorate, diperchlorate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

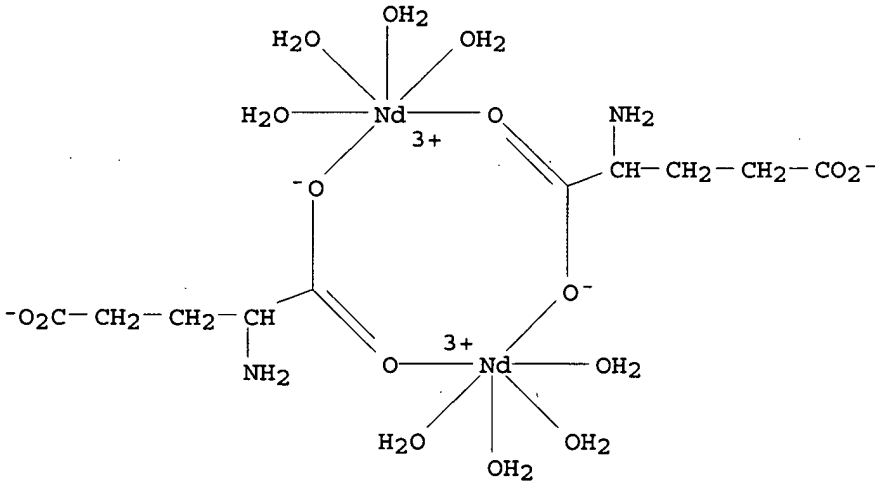


CM 2

CRN 125361-80-0
CMF C10 H30 N2 Nd2 O16 . 2 Cl O4

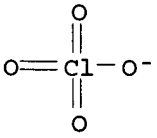
CM 3

CRN 125361-79-7
CMF C10 H30 N2 Nd2 O16
CCI CCS



CM 4

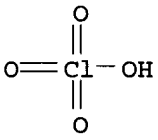
CRN 14797-73-0
CMF Cl O4



RN 125410-99-3 CAPLUS
CN Europium(2+), octaaquabis[.mu.-[L-glutamato(2-)-O1:O1']]di-, diperchlorate, diperchlorate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

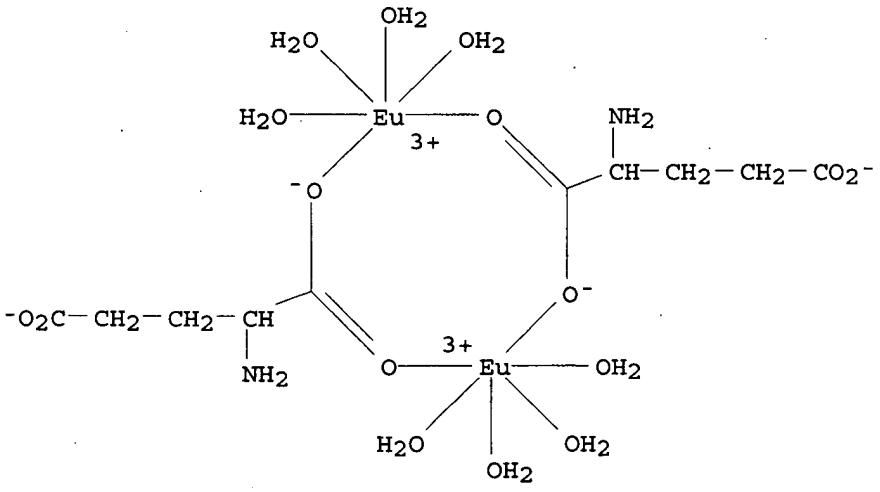


CM 2

CRN 124417-11-4
CMF C10 H30 Eu2 N2 O16 . 2 Cl O4

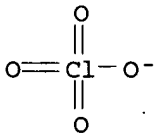
CM 3

CRN 124417-10-3
CMF C10 H30 Eu2 N2 O16
CCI CCS



CM 4

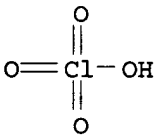
CRN 14797-73-0
CMF Cl O4



IT **125334-20-5 125334-23-8**
RL: PRP (Properties)
(crystal structure and absorption and **fluorescence** spectra of)
RN 125334-20-5 CAPLUS
CN Holmium(2+), octaaquabis[.mu.-[L-glutamato(2-)-O1:O1']]di-, diperchlorate, diperchlorate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4

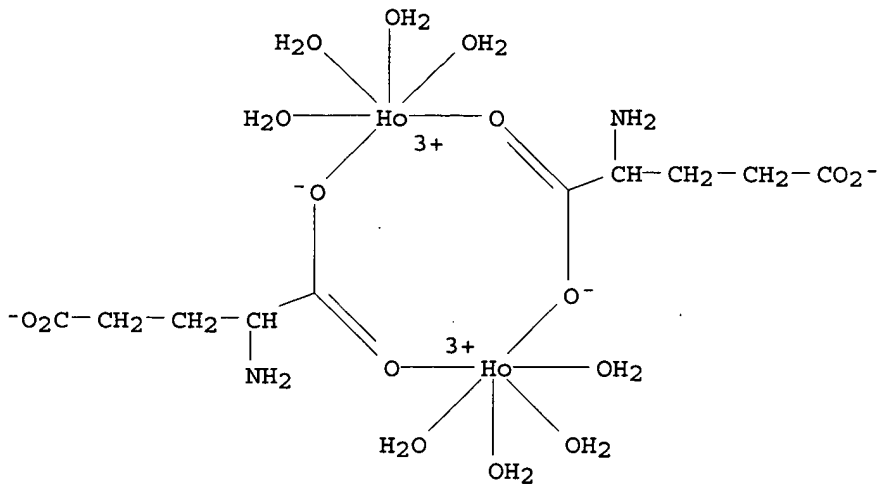


CM 2

CRN 125334-19-2
CMF C10 H30 Ho2 N2 O16 . 2 Cl O4

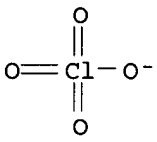
CM 3

CRN 125334-18-1
CMF C10 H30 Ho2 N2 O16
CCI CCS



CM 4

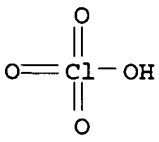
CRN 14797-73-0
CMF Cl O4



RN 125334-23-8 CAPLUS
CN Dysprosium(2+), octaaquabis[.mu.-[L-glutamato(2-)-O1:O1']]di-, diperchlorate, diperchlorate, monohydrate (9CI) (CA INDEX NAME)

CM 1

CRN 7601-90-3
CMF Cl H O4



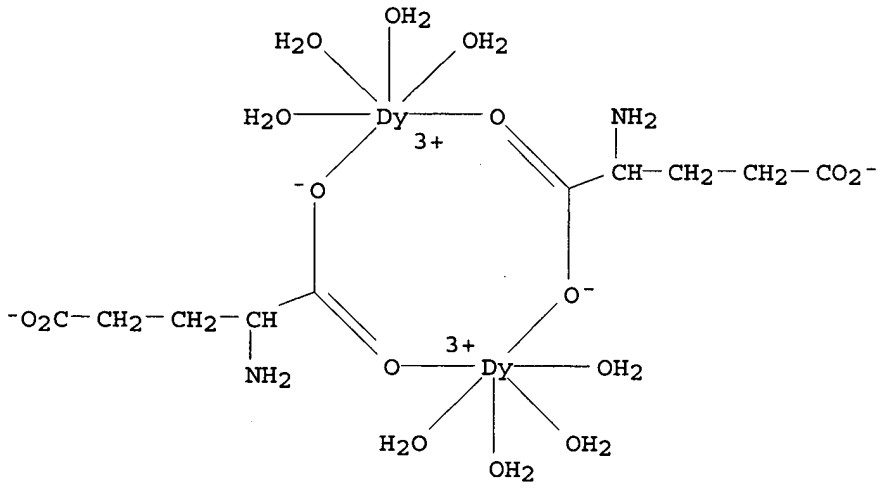
CM 2

KOROMA EIC1700

CRN 125334-22-7
CMF C10 H30 Dy2 N2 O16 . 2 Cl O4

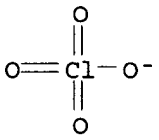
CM 3

CRN 125334-21-6
CMF C10 H30 Dy2 N2 O16
CCI CCS



CM 4

CRN 14797-73-0
CMF Cl O4

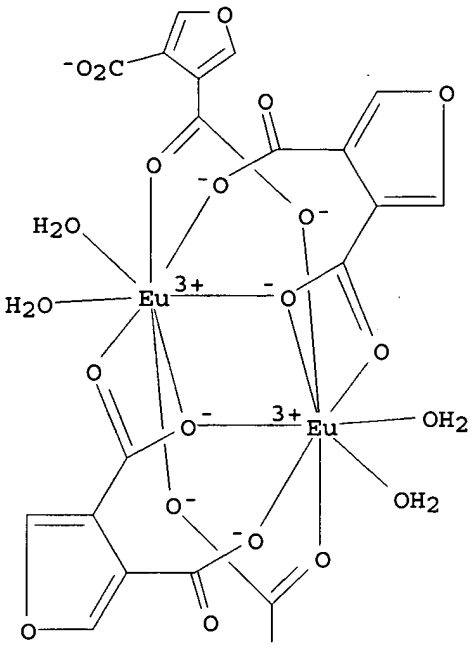


CC 75-8 (Crystallography and Liquid Crystals)
Section cross-reference(s): 73, 78
ST mol structure dysprosium holmium glutamato aqua; absorption spectra lanthanide glutamate perchlorate hydrate; fluorescence lanthanide glutamate perchlorate hydrate
IT Crystal structure
Molecular structure
(of dysprosium and holmium glutamato aqua perchlorate complexes)
IT Infrared spectra

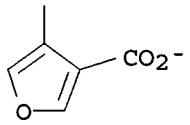
Ultraviolet and visible spectra
(of dysprosium glutamate perchlorate hydrate)
IT Fluorescence
(of lanthanide glutamate perchlorate hydrates)
IT Energy level transition
(f-f, in dysprosium glutamate perchlorate hydrate)
IT **125361-81-1 125410-99-3**
RL: PRP (Properties)
(absorption and **fluorescence** spectra of)
IT **125334-20-5 125334-23-8**
RL: PRP (Properties)
(crystal structure and absorption and **fluorescence** spectra of)

L30 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:525661 CAPLUS
DOCUMENT NUMBER: 111:125661
TITLE: Synthesis, characterization and structure of binuclear europium(III) and terbium(III) coordination compounds with 3,4-furandicarboxylic acid
AUTHOR(S): Duan, Zhibang; Hu, Ninghai; Jin, Zhongsheng; Ni, Jiazuan
CORPORATE SOURCE: Changchun Inst. Appl. Chem., Acad. Sin., Changchun, Peop. Rep. China
SOURCE: Yingyong Huaxue (1989), 6(2), 23-9
CODEN: YIHUED; ISSN: 1000-0518
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The prepn., characterization and structure of [Eu(HL2)(H2O)2]2.2H2O and [Tb(HL2)(H2O)2]2.2H2O (H2L = 3,4-furandicarboxylic acid) are reported. The compds. were characterized by IR, DTA, TG, DTG and **fluorescence** spectra. Two crystals are monoclinic with space group P2/c, a 10.842, 10.801, b 8.725, 8.664, c 16.366, 16.308 .ANG.; .beta. 93.50, 93.67.degree., Z = 2, 2 for Eu and Tb compds., resp. The complexes have 4 dicarboxylates bridging the 2 lanthanide atoms.
IT **118085-22-6P 122612-76-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)
RN 118085-22-6 CAPLUS
CN Europate(2-), tetraaquabis[.mu.-[3,4-furandicarboxylato(2-)-O3:O3']]bis[.mu.-[3,4-furandicarboxylato(2-)-O3,O3':O3,O4]]di-, dihydrogen, dihydrate (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

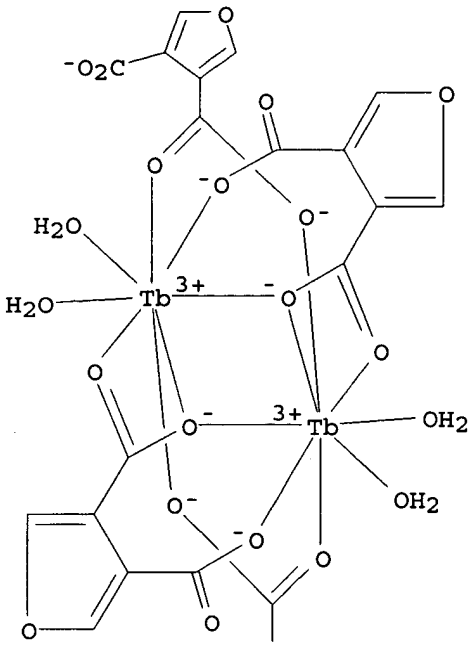


●2 H^+

●2 H_2O

RN 122612-76-4 CAPLUS
CN Terbate(2-), tetraaquabis[.mu.-[3,4-furandicarboxylato(2-)-.kappa.O3:.kappa.O3']]bis[.mu.-[3,4-furandicarboxylato(2-)-.kappa.O3,.kappa.O3':.kappa.O3,.kappa.O4]]di-, dihydrogen, dihydrate (9CI) (CA INDEX NAME)

PAGE 1-A



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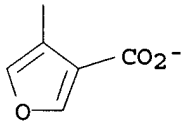


●2 H^+

●2 H_2O

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75
ST crystal structure furandicarboxylato europium terbium
IT Crystal structure
Molecular structure
(of europium and terbium furandicarboxylato complexes)
IT **118085-22-6P** 122083-19-6P 122083-20-9P **122612-76-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)

L30 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:182052 CAPLUS
DOCUMENT NUMBER: 110:182052
TITLE: Spectroscopy and crystal structure of holmium and dysprosium complex compounds with glycine: Ln(Gly)3(H2O)3(ClO4)3
AUTHOR(S): Legendziewicz, J.; Huskowska, E.; Argay, G.; Waskowska, A.
CORPORATE SOURCE: Inst. Chem., Univ. Wroclaw, Wroclaw, 50-383, Pol.
SOURCE: Journal of the Less-Common Metals (1989), 146, 33-47
CODEN: JCOMAH; ISSN: 0022-5088
DOCUMENT TYPE: Journal
LANGUAGE: English

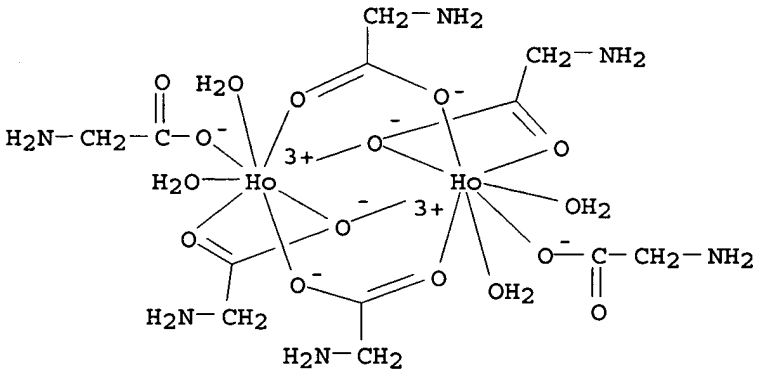
AB Lanthanide(III) complexes with the formula Ln(HO2CH2NH2)(H2O)3(ClO4)3 (where Ln .tplbond. Ho, Dy) were obtained in the form of monocrystals which were isomorphic and crystd. in monoclinic space group Cc with the following cell consts.: Ho(HO2CH2NH2)3(H2O)3(ClO4)3: a = 20.506(3), b = 9.245(1), c = 23.989(4) .ANG., .beta. = 100.28(1).degree., V = 4474.7(2) .ANG.3, Z = 8, dc = 2.20 g cm-3, dm = 2.19(2), MR = 742.53; Dy(HO2CH2NH2)3(H2O)3(ClO4)3: a = 20.56(7), b = 9.42(8), c = 24.16(5) .ANG., .beta. = 98.7(5).degree., Z = 8, and dm = 2.19. Results from the x-ray crystal structure detn. are given for the Ho3+ complex compd. The coordination polyhedron of a Ho(III) ion comprises 7 O atoms from glycine and 2 from H2O mols. Two O bridges fasten the linear polymer running along the b axis. Absorption spectra recorded in the region 5500-40,000 cm-1 were measured along the a axis for the Dy3+ complex and the probabilities of f-f transitions were analyzed on the basis of the B. R. Judd (1962)-G. S. Ofelt (1962) theory. Solid state fluorescence of Dy3+ was recorded at 77 and 300 K. The results are discussed and the Stark levels were detd. Spectroscopic properties of all the known Dy3+ **carboxylates** were compared.

IT **120156-48-1 120156-50-5**
RL: PRP (Properties)
(absorption and **fluorescence** and crystal structure of)

RN 120156-48-1 CAPLUS
CN Holmium, tetraaquabis[.mu.-(glycinato-O:O')]bis[.mu.-(glycinato-O:O,O')]bis(glycinato-O)di-, hexaperchlorate, dihydrate (9CI) (CA INDEX NAME)

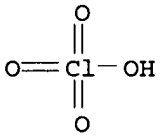
CM 1

CRN 120156-47-0
CMF C12 H32 Ho2 N6 O16
CCI CCS



CM 2

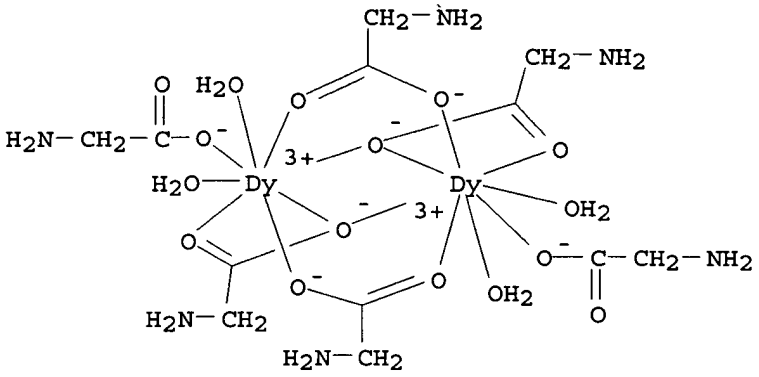
CRN 7601-90-3
CMF Cl H O4



RN 120156-50-5 CAPLUS
CN Dysprosium, tetraaquabis[.mu.-(glycinato-O:O')]bis[.mu.-(glycinato-O:O,O')]bis(glycinato-O)di-, hexaperchlorate, dihydrate (9CI) (CA INDEX NAME)

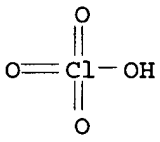
CM 1

CRN 120156-49-2
CMF C12 H32 Dy2 N6 O16
CCI CCS



CM 2

CRN 7601-90-3
CMF Cl H O4



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 75
ST lanthanide glycine perchlorate hydrate crystal structure; fluorescence
lanthanide glycine perchlorate hydrate; absorption lanthanide glycine perchlorate hydrate
IT Crystal structure
Fluorescence
Infrared spectra
Luminescence
Molecular structure
Ultraviolet and visible spectra
(of dysprosium and holmium glycine perchlorate hydrates)
IT **120156-48-1 120156-50-5**
RL: PRP (Properties)
(absorption and **fluorescence** and crystal structure of)

L30 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1963:50784 CAPLUS
DOCUMENT NUMBER: 58:50784
ORIGINAL REFERENCE NO.: 58:8614h,8615a
TITLE: Beryllium .alpha.-oxynaphthoate
AUTHOR(S): Semenenko, K. N.; Kurdyumov, G. M.

CORPORATE SOURCE: Univ. Moscow
SOURCE: Vestn. Mosk. Univ. (1960), 15(No. 5;Ser. II), 56-8
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

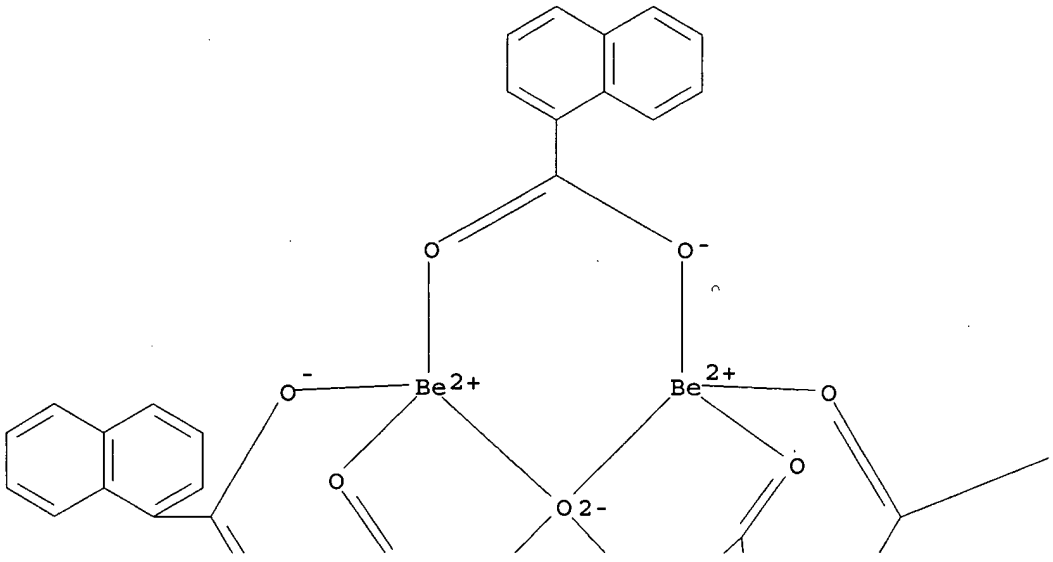
AB cf. Krasnec, et al., CA 52, 7002g. Be4O(C10H7COO)6 (I) was prepd. by interaction of anhyd. BeCl2 and .alpha.-naphthoic acid in CHCl3. I forms **light** yellow triclinic microcrystals (by x-ray analysis; a = 11.45 .+-. 0.05, b = 22.60 .+-. 0.05, c = 24.50 .+-. 0.05 kX, .alpha. = 80.degree., .beta. = 112.degree., .gamma. = 110.degree.), m. 239.degree. (PhMe) and solidifies at 210.degree. as an amorphous glassy mass transformable to a cryst. one again. By recrystn. of I from C6H6, I.2.5C6H6 was obtained which readily lost 1 mol. of C6H6 at lab. temp. and the rest at temps. above 70.degree.. I.2.5C6H6 has different, I.1.5C6H6 the same crystal structure as I (by x-ray analyses). By recrystn. of I from PhMe only I resulted. This favors consideration of I.nC6H6 (n = 1.5 or 2.5) as inclusion compds. I and I.2.5C6H6 were investigated by thermal analysis.

IT **91371-80-1**, Beryllium, oxohexakis(1-naphthoato)tetra- (prepn. and structure of)

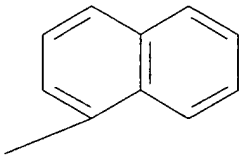
RN 91371-80-1 CAPLUS

CN Beryllium, hexakis[.mu.-(1-naphthalenecarboxylato-O:O')]-.mu.4-oxotetra- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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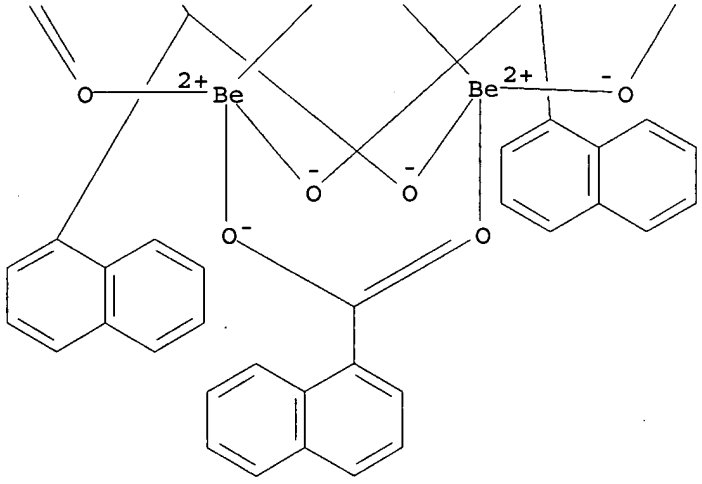

CC 14 (Inorganic Chemicals and Reactions)

IT Crystal structure, 6742
(of oxohexakis(1-naphthoato)tetraberyllium and its compds. with benzene)

IT Benzene, compd. with oxohexakis(1-naphthoato)tetraberyllium (3:2)
Benzene, compd. with oxohexakis(1-naphthoato)tetraberyllium (5:2)

IT 86-55-5, 1-Naphthoic acid
(beryllium complexes)

IT **91371-80-1**, Beryllium, oxohexakis(1-naphthoato)tetra-
(prepn. and structure of)

IT 91371-81-2, Beryllium, oxohexakis(1-naphthoato)tetra-, compd. with benzene (2:3) 91399-45-0, Beryllium, oxohexakis(1-naphthoato)tetra-, compd. with benzene (2:5)
(prepn. of)

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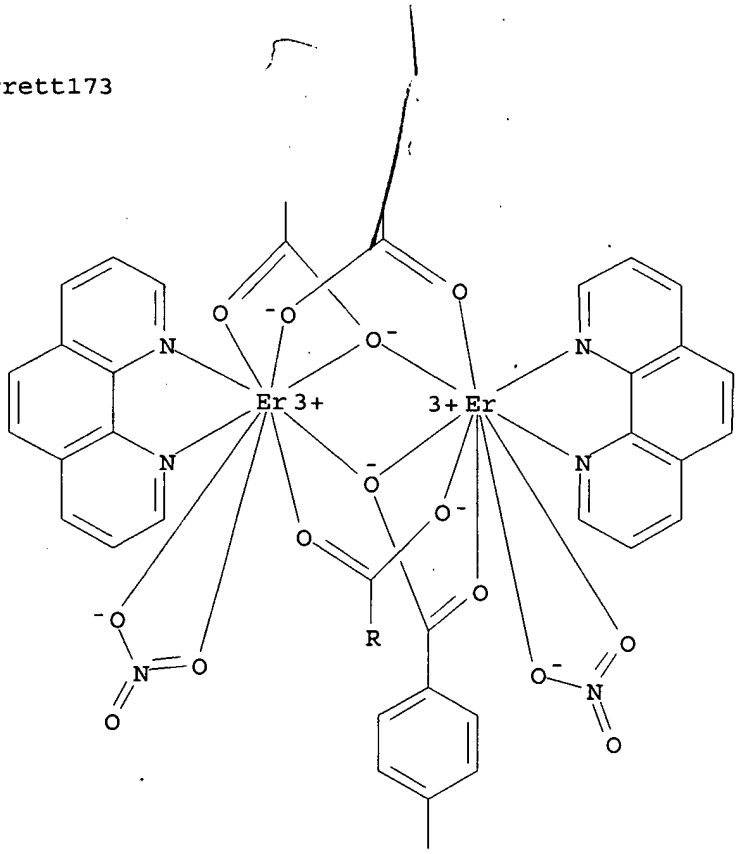

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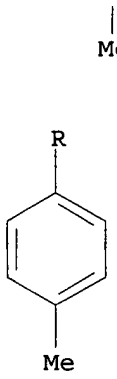
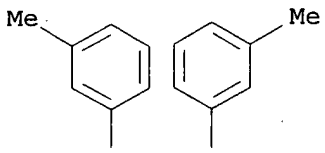


RN 403830-79-5 CAPLUS

CN Lanthanum, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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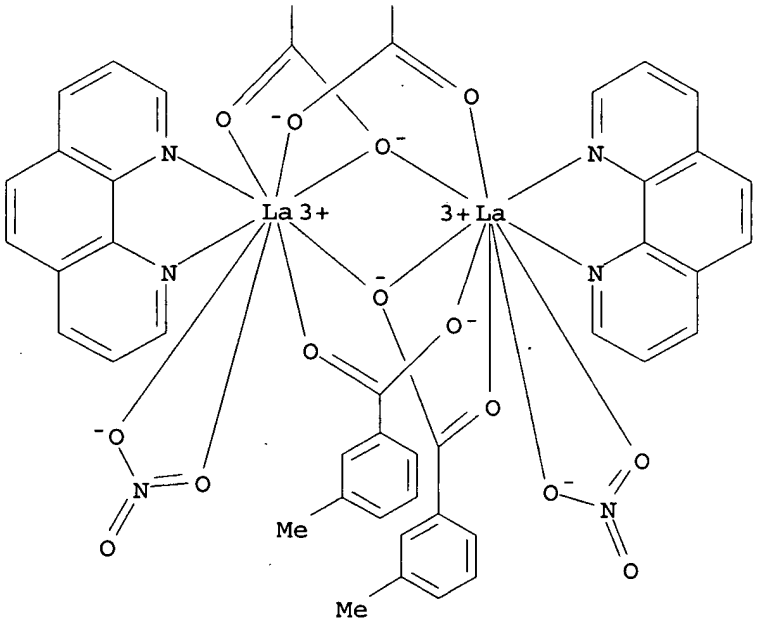

RN 403830-81-9 CAPLUS

KOROMA EIC1700

CN Cerium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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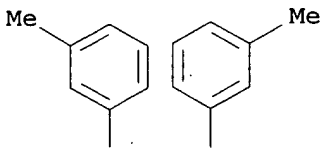

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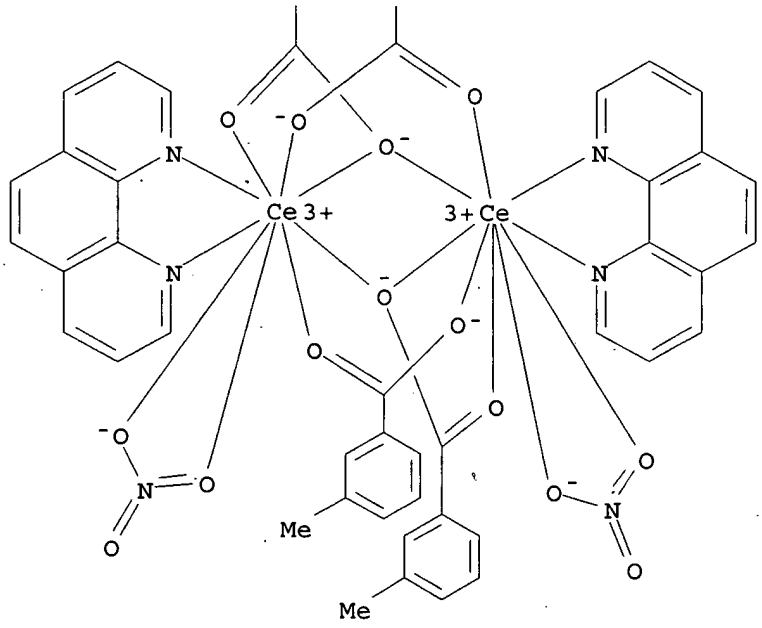
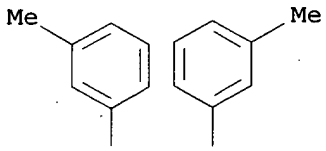


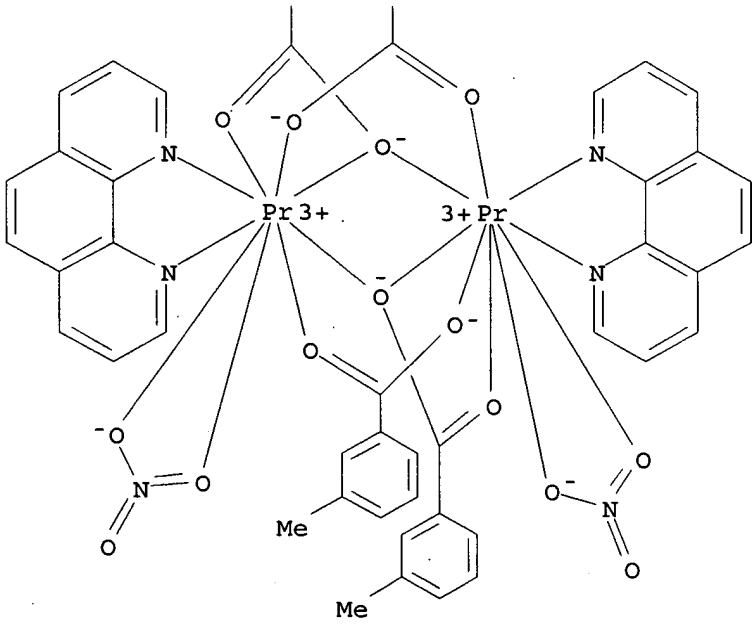
RN 403830-83-1 CAPLUS

CN Praseodymium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

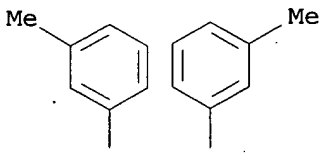


RN 403830-85-3 CAPLUS

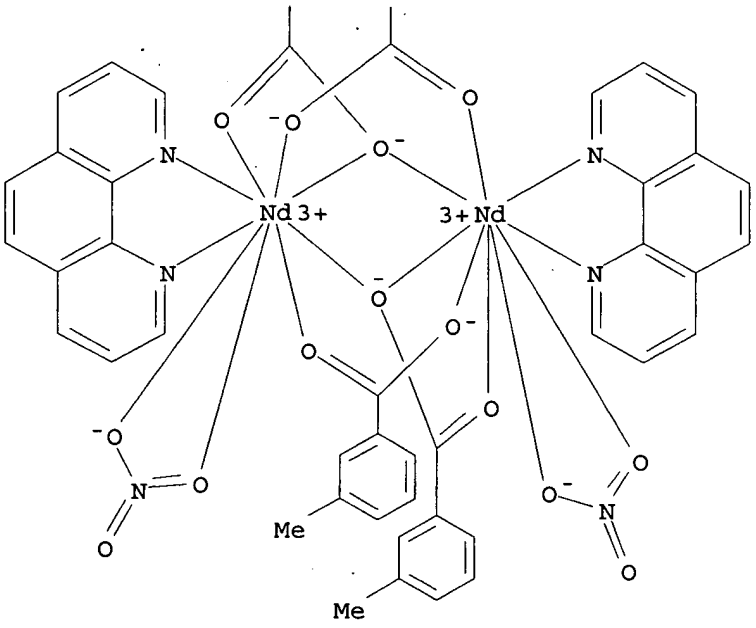
KOROMA EIC1700

CN Neodymium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu
.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-
.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI)
(CA INDEX NAME)

PAGE 1-A



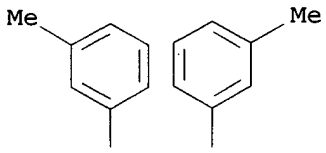
PAGE 2-A



RN 403830-88-6 CAPLUS

CN Terbium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

PAGE 1-A



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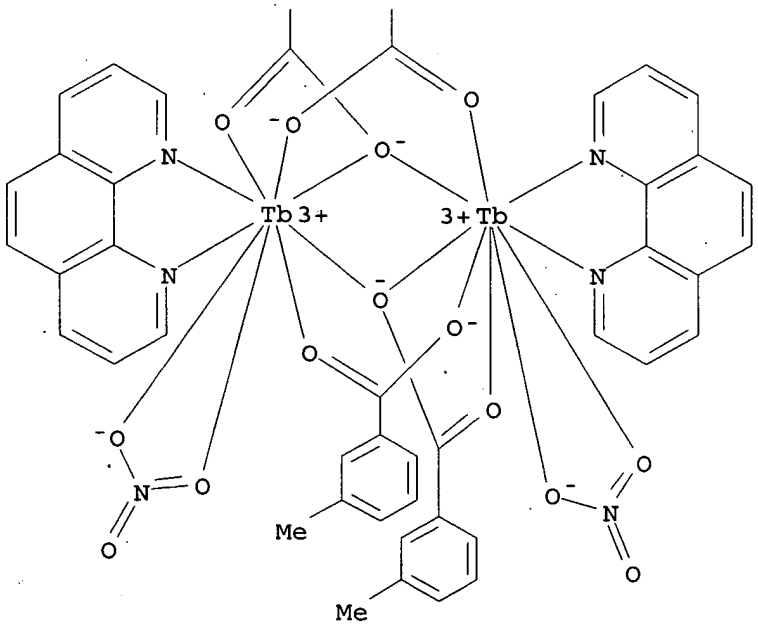

RN 403830-89-7 CAPLUS

KOROMA EIC1700

CN Erbium, bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(3-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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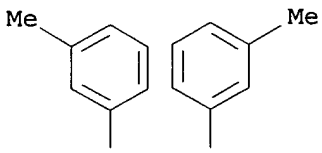

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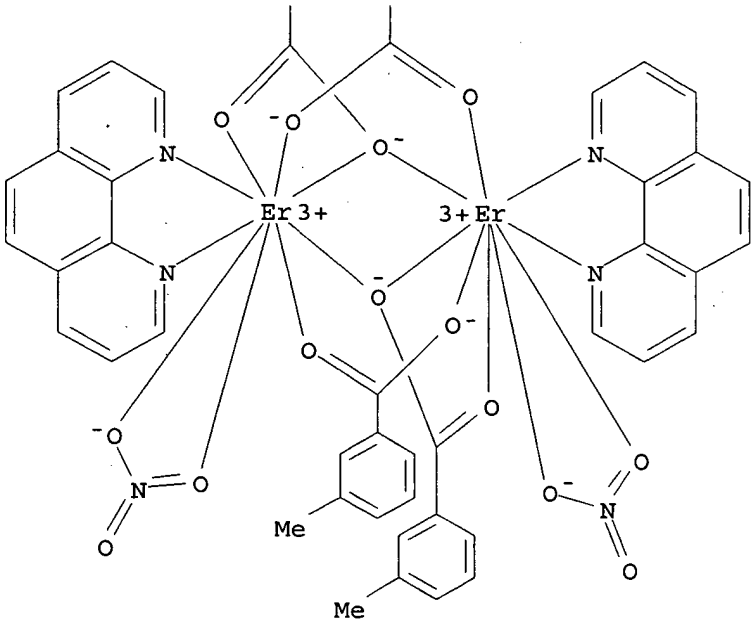

RN 403830-90-0 CAPLUS

CN Lanthanum, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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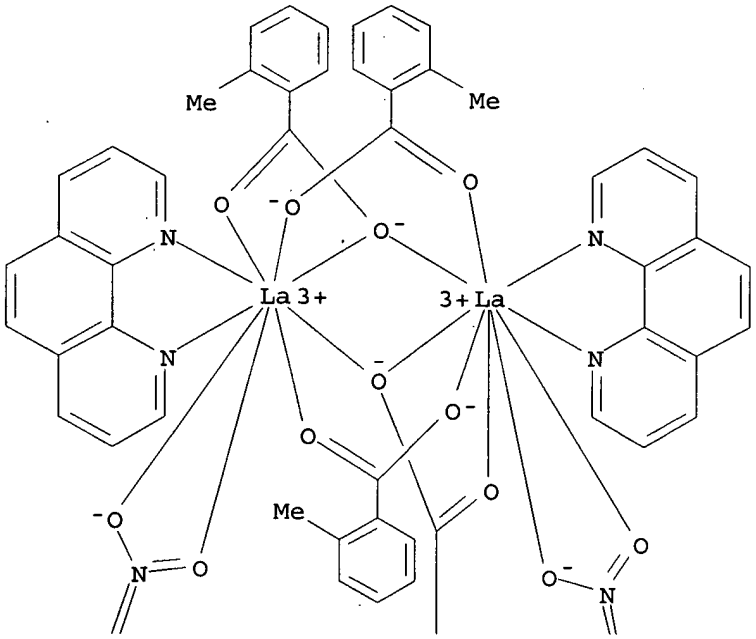

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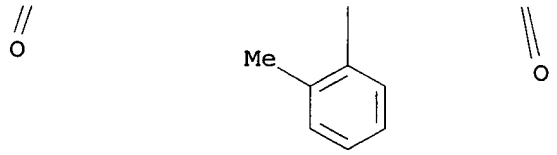

RN 403830-92-2 CAPLUS

CN Praseodymium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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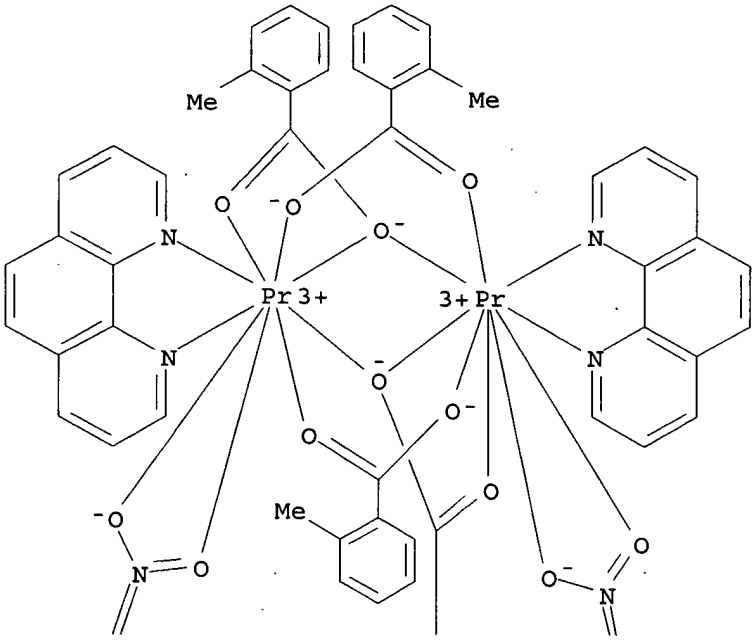

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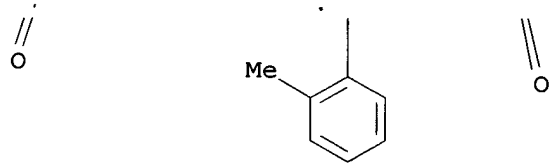

RN 403830-94-4 CAPLUS

CN Neodymium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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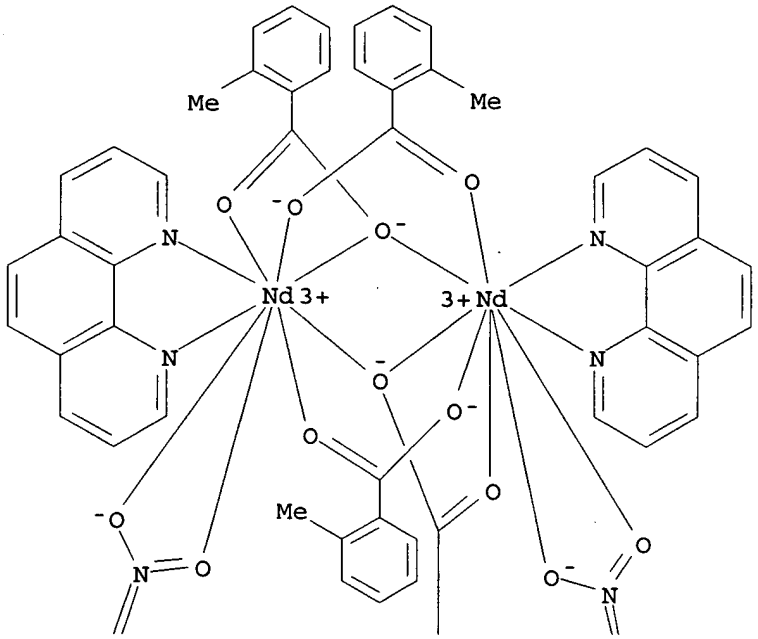

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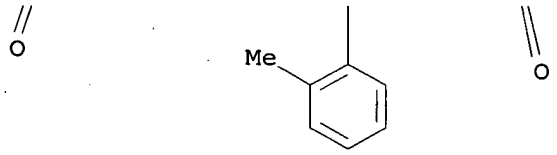

RN 403830-97-7 CAPLUS

CN Terbium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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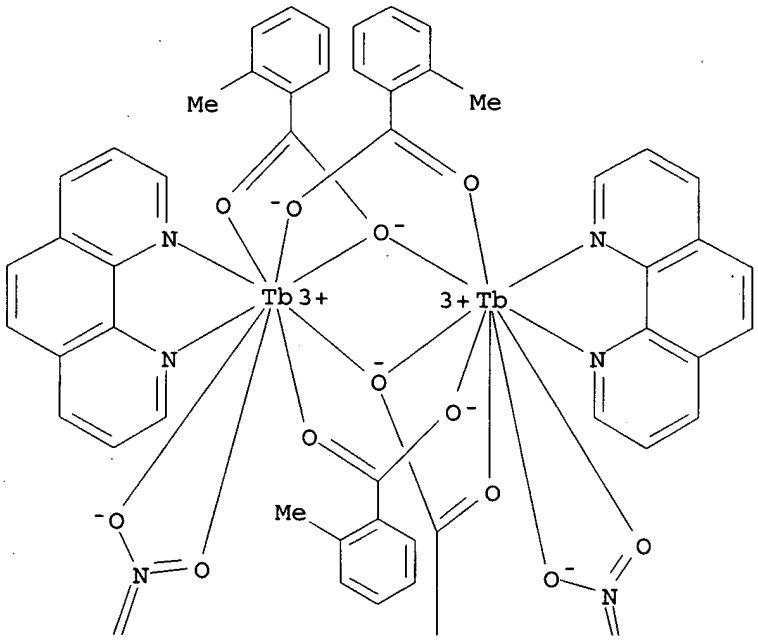

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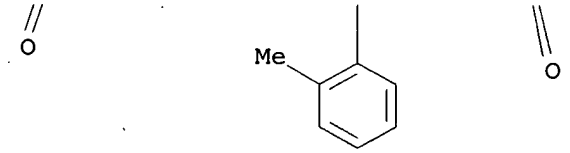

RN 403830-98-8 CAPLUS

CN Erbium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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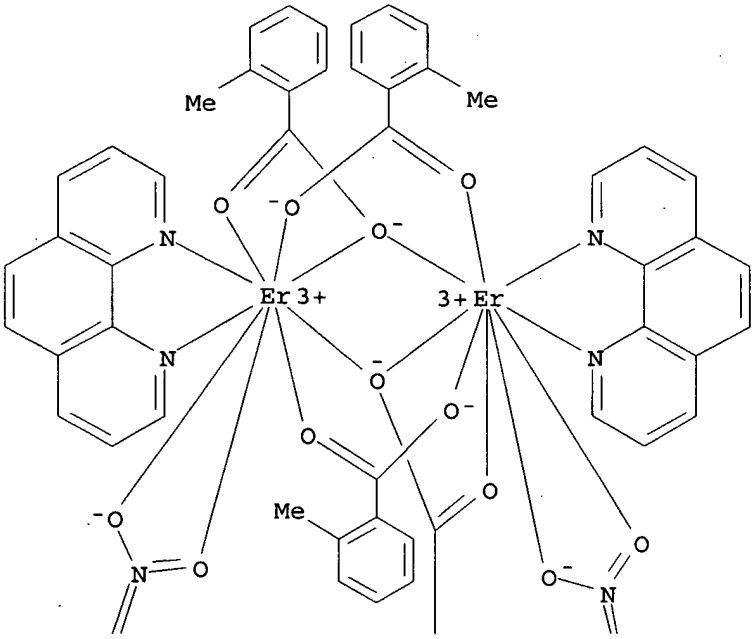

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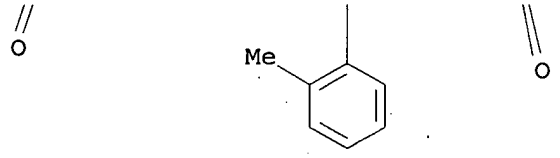

RN 403832-28-0 CAPLUS

CN Cerium, bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O,.kappa.O')]bis[.mu.-(2-methylbenzoato-.kappa.O:.kappa.O')]bis(nitrato-.kappa.O,.kappa.O')bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di- (9CI) (CA INDEX NAME)

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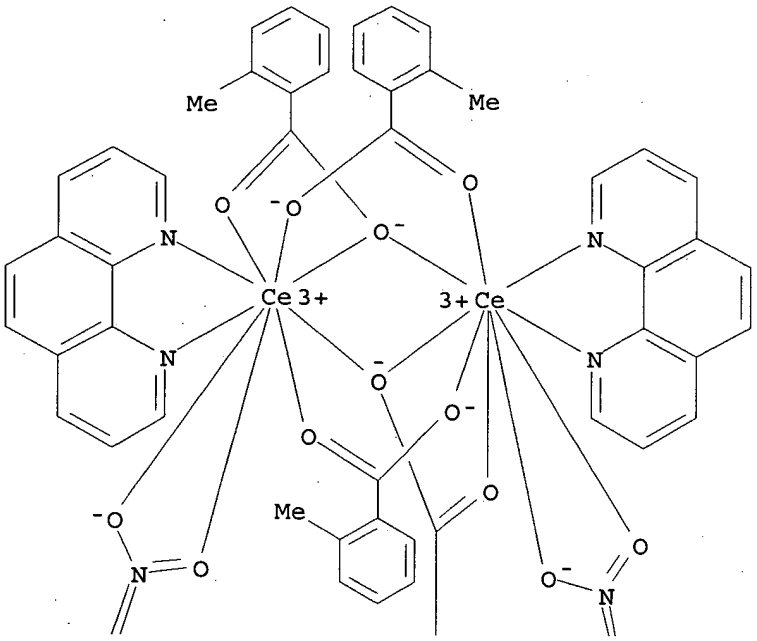

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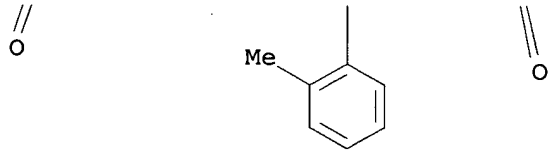


CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73

ST rare earth benzoate phenanthroline complex prepn; fluorescence europium gadolinium methylbenzoate phenanthroline complex

IT Rare earth complexes
RL: SPN (Synthetic preparation); PREP (Preparation)
(**carboxylic** acid, phenanthroline)

IT Fluorescence
(europium and gadolinium methylbenzoate phenanthroline complexes)

IT **Carboxylic** acids, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(rare earth complexes, phenanthroline)

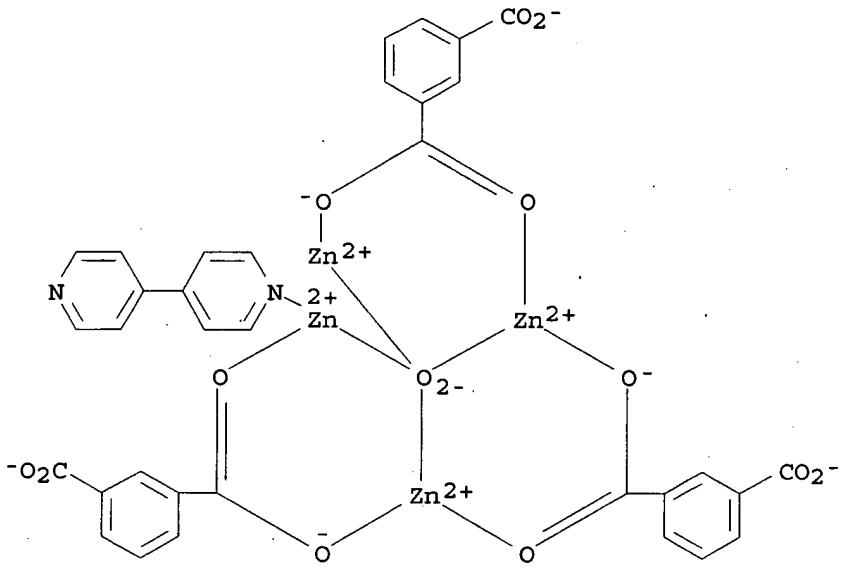
IT **329898-03-5P 329898-04-6P 403830-74-0P 403830-86-4P 403830-96-6P 403832-29-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **fluorescence**)

IT **254444-51-4P 403830-68-2P 403830-70-6P**
403830-72-8P 403830-76-2P 403830-78-4P
403830-79-5P 403830-81-9P 403830-83-1P
403830-85-3P 403830-88-6P 403830-89-7P
403830-90-0P 403830-92-2P 403830-94-4P
403830-97-7P 403830-98-8P 403832-28-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
IT 99-04-7, m-Methylbenzoic acid 99-94-5, p-Methylbenzoic acid 118-90-1, o-Methylbenzoic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for prepn. of lanthanide methylbenzoate phenanthroline complexes)

L30 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2003 ACS (printed)
ACCESSION NUMBER: 2000:730079 CAPLUS
DOCUMENT NUMBER: 134:80113
TITLE: Blue photoluminescent zinc coordination polymers with supertetranuclear cores
AUTHOR(S): Tao, Jun; Tong, Ming-Liang; Shi, Jian-Xin; Chen, Xiao-Ming; Ng, Seik Weng
CORPORATE SOURCE: State Key Lab. Ultrafast Laser Spectroscopy and Sch. Chemistry and Chem. Eng., Zhongshan University, Canton, 510275, Peop. Rep. China
SOURCE: Chemical Communications (Cambridge) (2000), (20), 2043-2044
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two- and three-dimensional coordination polymers consisting of Zn4O [or Zn4(OH)2] cores, dicarboxylate (isophthalate (i.p.) or fumarate (fa)) and 4,4'-bipyridine ligands as building blocks, [Zn4O(i.p.)3(4,4'-bipy)] (1) and [Zn4(OH)2(fa)3(4,4'-bipy)2] (2), were hydrothermally synthesized and structurally characterized by x-ray single-crystal anal. 1 And 2 exhibit intense photoluminescence in the solid state, and may be good candidates for blue-**light emitting** diode **devices**.
IT **315236-72-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydrothermal prepn., crystal and mol. structure and photoluminescence)
RN 315236-72-7 CAPLUS
CN Zinc, tris[.mu.-[1,3-benzenedicarboxylato(2-)-.kappa.O1:.kappa.O1']](4,4'-bipyridine-.kappa.N1)-.mu.4-oxotetra-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 315236-71-6
CMF C34 H20 N2 O13 Zn4
CCI CCS



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73, 75
ST crystal structure zinc bipyridine isophthalato fumarato polymer; zinc bipyridine isophthalate fumarate polymer prepn structure photoluminescence
IT Crystal structure
Luminescence
Molecular structure
(of zinc bipyridine isophthalato two-dimensional and fumarato three-dimensional polymeric complexes with Zn4O and Zn4(OH)2 supertetranuclear cores)
IT **315236-72-7P** 315236-76-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(hydrothermal prepn., crystal and mol. structure and photoluminescence)
IT 110-17-8, Fumaric acid, reactions 121-91-5, Isophthalic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for hydrothermal prepn. of zinc bipyridine dicarboxylate polymeric complex with supertetranuclear core)
IT 553-26-4, 4,4'-Bipyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for hydrothermal prepn. of zinc bipyridine isophthalato two-dimensional and fumarato three-dimensional polymeric complexes with Zn4O and Zn4(OH)2 supertetranuclear cores)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:600949 CAPLUS
DOCUMENT NUMBER: 133:281853
TITLE: A Novel Rhombohedral Grid Based on Tetraorganodistannoxane as Corner Unit
AUTHOR(S): Xiong, Ren-Gen; Zuo, Jing-Lin; You, Xiao-Zeng; Fun,

Hoong-Kun; Raj, S. Shanmuga Sundara
CORPORATE SOURCE: Coordination Chemistry Institute State Key Laboratory of Coordination Chemistry, Nanjing University, Nanjing, 210093, Peop. Rep. China
SOURCE: Organometallics (2000), 19(20), 4183-4186
CODEN: ORGND7; ISSN: 0276-7333
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:281853

printed

AB Under hydrothermal conditions, the reaction of vanillic acid with trimethyltin chloride gives rise to a novel 2D rhombohedral grid, {([Me2Sn(VA)0.5]2O)2.cntdot.2H2O}n (1), with a tetraorganodistannoxane as corner unit.

IT **299433-75-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., **fluorescence**, and crystal structure of)

RN 299433-75-3 CAPLUS

CN Tin, octamethyldi-.mu.3-oxobis[.mu.-(4-quinolinecarboxylato-.kappa.O4:.kappa.O4')]bis(4-quinolinecarboxylato-.kappa.O4)tetra-, stereoisomer (9CI) (CA INDEX NAME)

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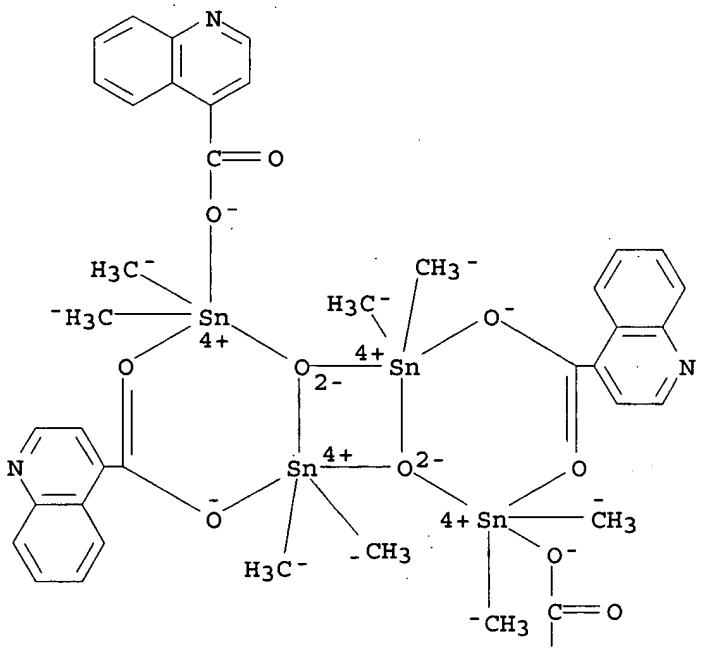

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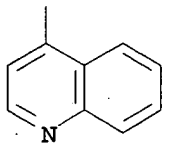


CC 29-8 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22, 35, 73, 75

ST crystal structure tetraorganodistannoxane based rhombohedral grid prepn **fluorescence**; mol structure tetraorganodistannoxane based rhombohedral grid; stannoxane tetraorgano rhombohedral grid prepn structure; cis ladder tetraorganodistannoxane acetato bridged prepn structure

IT Ligands
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(bridging, vanillic acid, quinolinecarboxylic acid; in rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT Crystal structure
Molecular structure
(of rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT Cluster compounds
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(oxygen-tin; rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT **Fluorescence**
(rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT Group IVA element compounds
Group IVA element compounds
Group VIA element compounds
Group VIA element compounds
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(stannoxanes; rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT 121-34-6, Vanillic acid 486-74-8, 4-Quinolinecarboxylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(complexation under hydrothermal conditions with trimethyltin chloride to form rhombohedral grid based on tetraorganodistannoxane as corner unit)

IT 1066-45-1, Trimethyltin chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(complexation under hydrothermal conditions with vanillic acid or quinolinecarboxylic acid to form rhombohedral grids based on tetraorganodistannoxane as corner unit)

IT 299433-70-8P **299433-75-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., **fluorescence**, and crystal structure of)

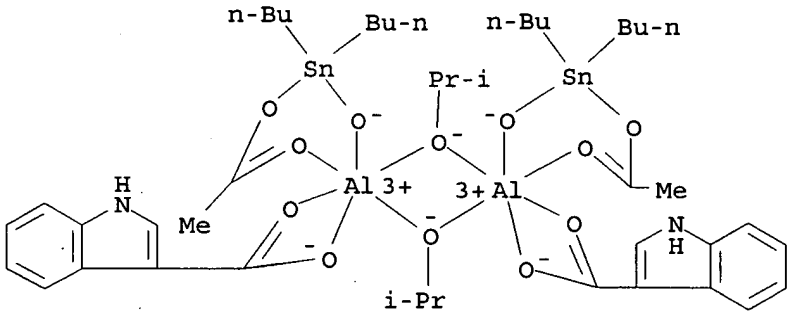
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:147736 CAPLUS
DOCUMENT NUMBER: 132:279294
TITLE: Heterocarboxylates of dibutyltin(IV) **aluminium** (III) -.mu.-oxo isopropoxy acetate and dibutyltin (IV) **aluminium** (III) -.mu.-oxo isopropoxide
AUTHOR(S): Aggarwal, A.; Sonika; Aggarwal, S.; Narula, A. K.
CORPORATE SOURCE: Department of Industrial Chemistry, Guru Jambheshwar University, Hisar, 125001, India
SOURCE: Indian Journal of Chemistry, Section A: Inorganic, Bio-inorganic, Physical, Theoretical & Analytical Chemistry (1999), 38A(12), 1283-1285
CODEN: ICACEC; ISSN: 0376-4710
PUBLISHER: National Institute of Science Communication, CSIR
DOCUMENT TYPE: Journal
LANGUAGE: English

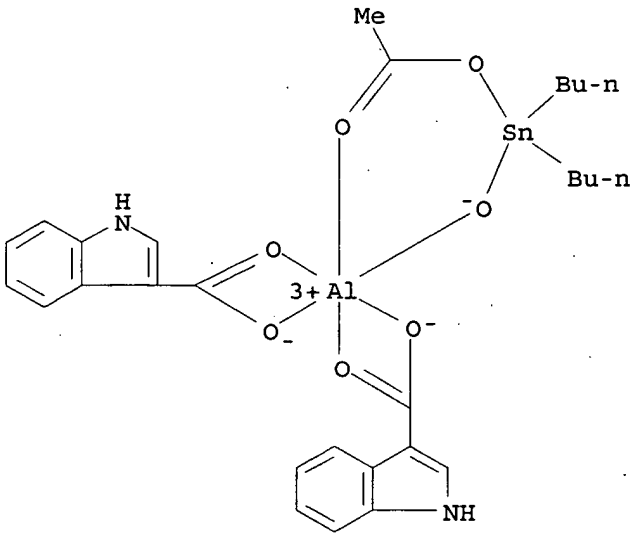
AB Dibutyltin(IV)aluminum(III)-.mu.-oxo isopropoxy acetate, Bu2Sn(OAc)OAl(OPri)2, (A) and dibutyltin(IV) aluminum(III)-.mu.-oxo isopropoxide, Bu2SnO2Al2(OPri)4, (B) have been synthesized. Reaction of A with heterocarboxylic acids, indole-3-carboxylic (ICH), indole-3-propionic (IPH), indole-3-butyric acid (IBH) and L-tryptophan (TRH), yielded complexes of the types Bu2Sn(OAc)OAl(OPri)L and Bu2Sn(OAc)OAl(L)2 (where L = heterocarboxylate anion). Reaction of B with heterocarboxylic acids yielded compds. of the types Bu2SnO2Al2(OPri)3L and Bu2SnO2Al2(OPri)2L2. These complexes have been characterized by elemental anal. and spectral studies (IR, 1H NMR, 13C NMR, 119Sn NMR and 27Al NMR).

IT **263858-82-8P 263858-83-9P 263858-90-8P 263858-91-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 263858-82-8 CAPLUS
CN Aluminum, bis[[(acetyl-.kappa.O)oxy]dibutyl(hydroxy-.kappa.O)stannanato]bis(1H-indole-3-carboxylato-.kappa.O3,.kappa.O3')bis[.mu.-(2-propanolato)]di- (9CI) (CA INDEX NAME)



RN 263858-83-9 CAPLUS
CN Aluminum, [[(acetyl-.kappa.O)oxy]dibutyl(hydroxy-.kappa.O)stannanato]bis(1H-indole-3-carboxylato-.kappa.O3,.kappa.O3')-(9CI) (CA INDEX NAME)



RN 263858-90-8 CAPLUS

CN Aluminum, bis[.mu.-[dibutyldi(hydroxy-.kappa.O)stannanato(2-)]]bis(1H-indole-3-carboxylato-.kappa.O3,.kappa.O3')tetrakis[.mu.-(2-propanolato)]bis(2-propanolato)tetra- (9CI) (CA INDEX NAME)

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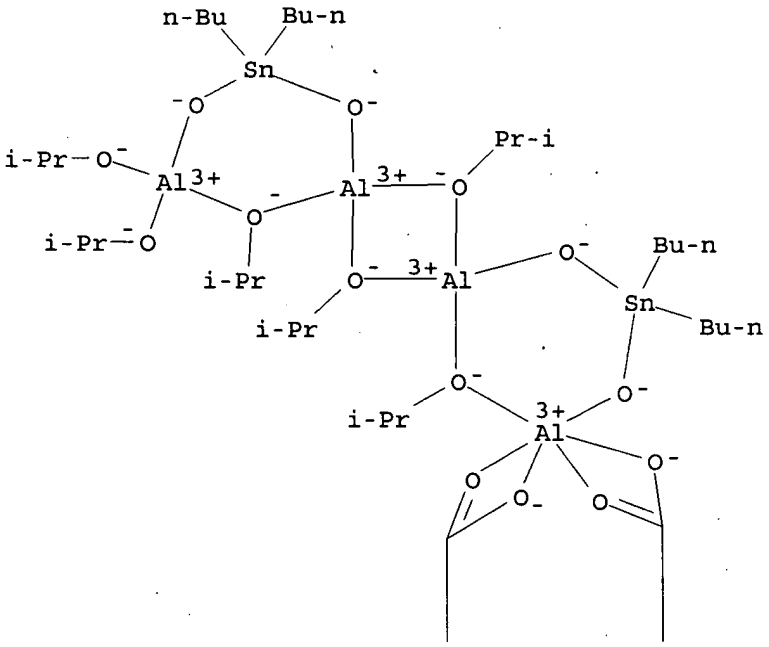

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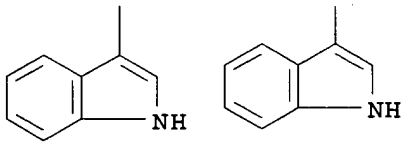
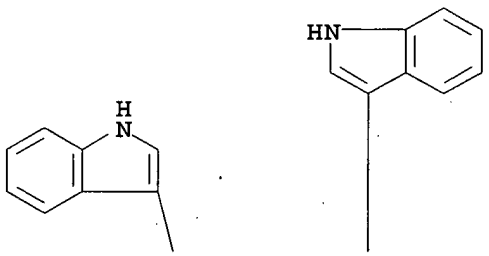


RN 263858-91-9 CAPLUS

CN Aluminum, bis[.mu.-[dibutyldi(hydroxy-.kappa.O)stannanato(2-)]]tetrakis(1H-indole-3-carboxylato-.kappa.O3,.kappa.O3')tetrakis[.mu.-(2-propanolato)]tetra- (9CI) (CA INDEX NAME)

PAGE 1-A



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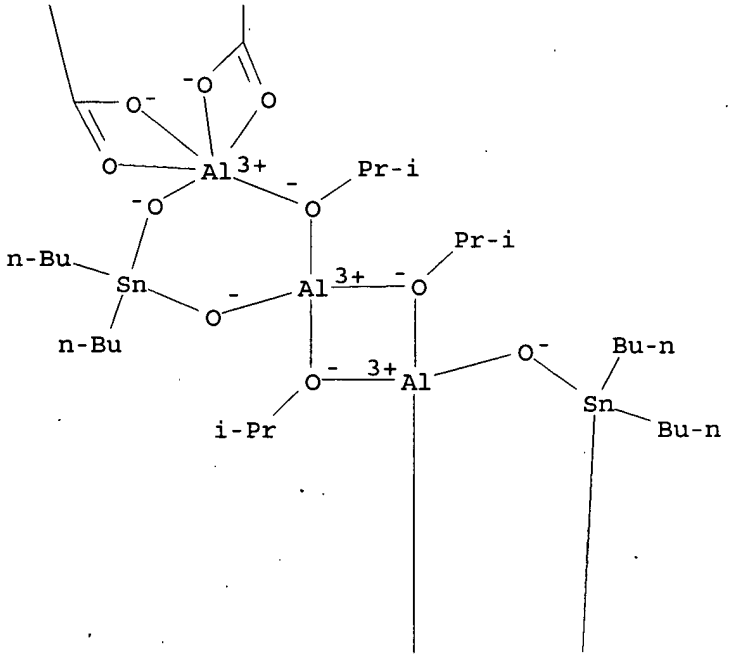

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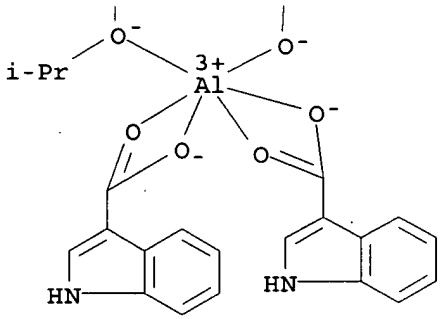

CC 29-8 (Organometallic and Organometalloidal Compounds)

ST aluminum tin heterocarboxylate oxo isopropoxy compd prepn; carboxylic acid condensation aluminum tin oxo isopropoxy compd

IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensations with aluminum organotin oxo-bridged isopropoxy acetate and isopropoxide compds.)

IT 73-22-3, L-Tryptophan, reactions 133-32-4, Indole-3-butyric acid 771-50-6, Indole-3-carboxylic acid 830-96-6, Indole-3-propionic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensations with aluminum organotin oxo-bridged isopropoxy acetate

and isopropoxide compds.)
IT 156822-67-2 156842-89-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensations with tryptophan and indolyl carboxylic, propionic, and butyric acids)
IT **263858-82-8P 263858-83-9P** 263858-84-0P 263858-85-1P
263858-86-2P 263858-87-3P 263858-88-4P 263858-89-5P
263858-90-8P 263858-91-9P 263858-92-0P 263858-93-1P
263858-94-2P 263858-95-3P 263858-96-4P 263858-97-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:361263 CAPLUS
DOCUMENT NUMBER: 131:138367
TITLE: Crystal structure and luminescence of [Eu2(o-ClC6H4OCH2COO)6(C12H8N2)2(H2O)2].cntdot.(CH3)2SO
AUTHOR(S): Li, Xia; Jin, Lin-Pei; Wang, Shao-Ting; Li, Yan
CORPORATE SOURCE: Dep. Chem., Capital Normal Univ., Beijing, 100037, Peop. Rep. China
SOURCE: Wuji Huaxue Xuebao (1999), 15(3), 305-309
CODEN: WHUXEO; ISSN: 1001-4861
PUBLISHER: Wuji Huaxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB New [Eu2(o-ClC6H4OCH2COO)6(phen)2(H2O)2].cntdot.(CH3)2SO (I) crystallizes in monoclinic system with space group P21/c, a 1.2975(3), b 2.6591(9), c 1.2118(3) nm, .beta. 96.95(1).degree., Z = 2, M = 1892.01, dc = 1.577 g/cm3, T = 293(2)K. The final R = 0. 0583. I is a dimer, which is linked by the bridged **carboxylate** groups to form a binuclear mol. The **carboxylate** groups in the complex are bonded to the Eu ion in the bridged bidentate, the bridged tridentate and the monodentate modes. Eu-Eu distance is 0.4019(1) nm. The results of fluorescence of the complex obsd. at 77K using 337.1 nm radiation show that the only one Eu(III) ion site is in the complex. 5D0.fwdarw.7FJ (J = 0-2) transition fluorescence spectra combined with the results of x-ray anal. confirm the C2 symmetry of the Eu(III) ion site.
IT **233679-01-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and **fluorescence**)
RN 233679-01-1 CAPLUS
CN Europium, diaquatetrakis[.mu.-[(2-chlorophenoxy)acetato-.kappa.O:.kappa.O']]bis[(2-chlorophenoxy)acetato-.kappa.O]bis(1,10-phenanthroline-.kappa.N1,.kappa.N10)di-, compd. with sulfinylbis[methane] (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 233679-00-0

CMF C72 H56 Cl6 Eu2 N4 O20
CCI CCS

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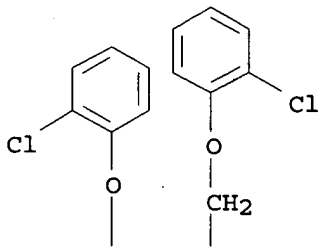

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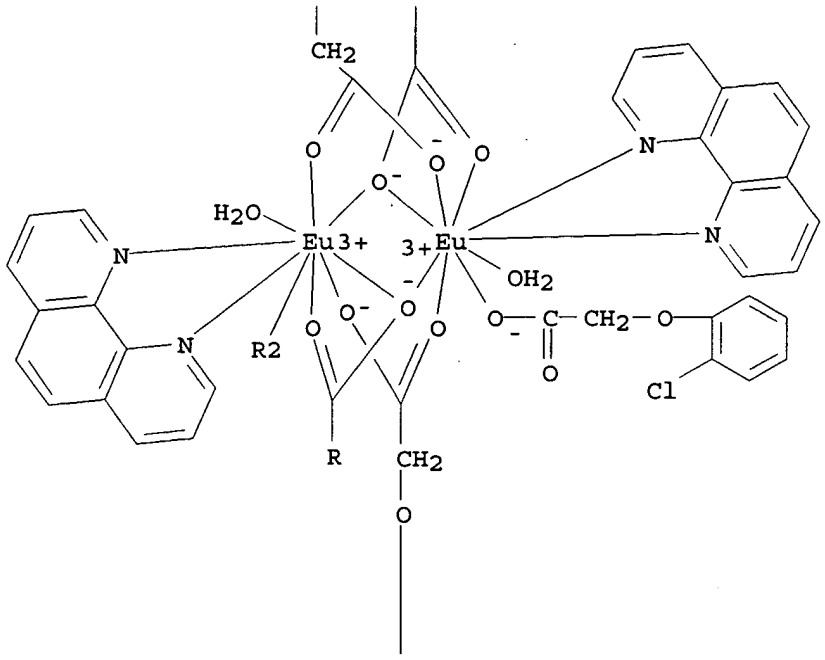

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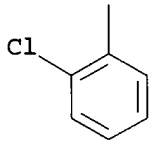

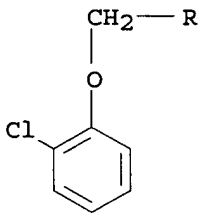

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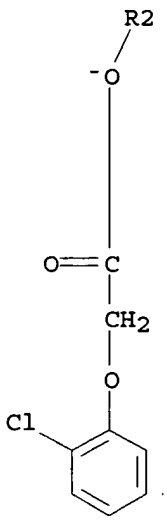
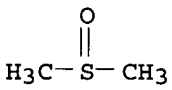


CM 2

CRN 67-68-5
CMF C2 H6 O S



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 73, 75
ST europium phenoxyacetato phenanthroline dimer prepn structure; crystal structure europium phenoxyacetato phenanthroline dimer; fluorescence europium phenoxyacetato phenanthroline dimer
IT Crystal structure
Fluorescence
Molecular structure
(of europium chlorophenoxyacetate phenanthroline dimeric complex)
IT **233679-01-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure and **fluorescence**)
IT 614-61-9, o-Chlorophenoxyacetic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for prepn. of europium chlorophenoxyacetate phenanthroline dimeric complex)

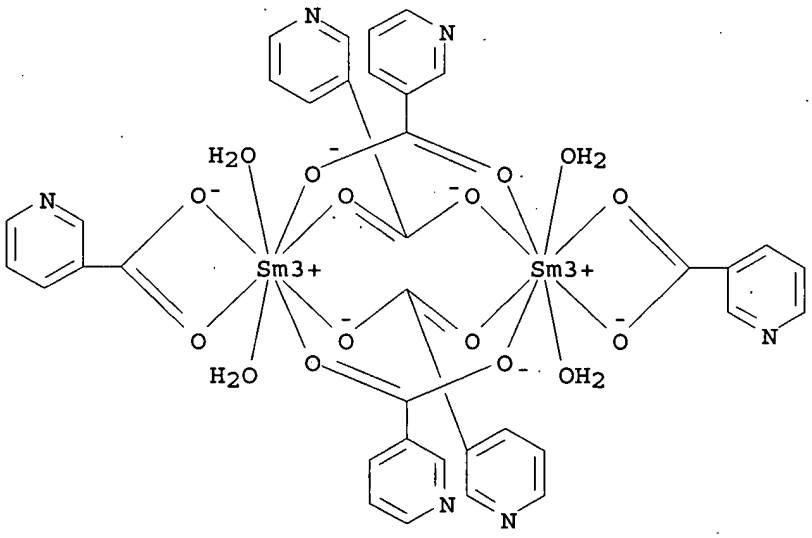
L30 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:757749 CAPLUS

DOCUMENT NUMBER: 126:66834
TITLE: The crystal field in the lanthanide nicotinates
AUTHOR(S): Malkin, B. Z.; Vinokurov, A. V.; Baker, J. M.; Leask, M. J. M.; Robinson, M. G.; Hutchison, C. A., Jr.
CORPORATE SOURCE: Physics Department, Kazan State University, Kazan, 420008, Russia
SOURCE: Proceedings of the Royal Society of London, Series A: Mathematical, Physical and Engineering Sciences (1996), 452(1954), 2509-2526
CODEN: PRLAAZ; ISSN: 0962-8444
PUBLISHER: Royal Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The majority of the exptl. results of previous measurements of optical absorption and **fluorescence**, including the Zeeman effect, of magnetic susceptibility and ESR, on lanthanide nicotinate dihydrates of the heavier half of the lanthanide group, were accounted for by a model of the crystal field. This crystal field is constructed within the framework of the exchange charge model in an approxn. with only four fitted parameters.

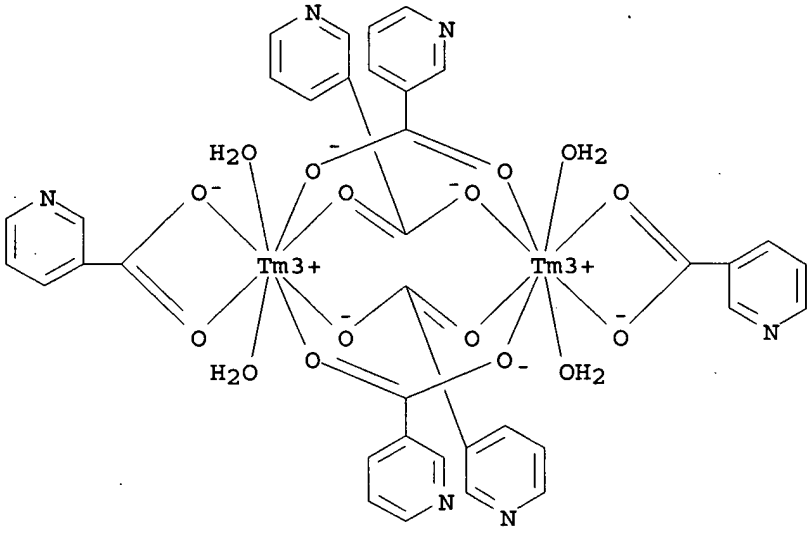
IT **36426-60-5 85645-64-3 95054-25-4 96210-21-8 96210-22-9 96500-82-2 185215-51-4**
RL: PRP (Properties)
(crystal field and elec. and optical and magnetic properties for lanthanide nicotinates)

RN 36426-60-5 CAPLUS
CN Samarium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-, stereoisomer (9CI) (CA INDEX NAME)

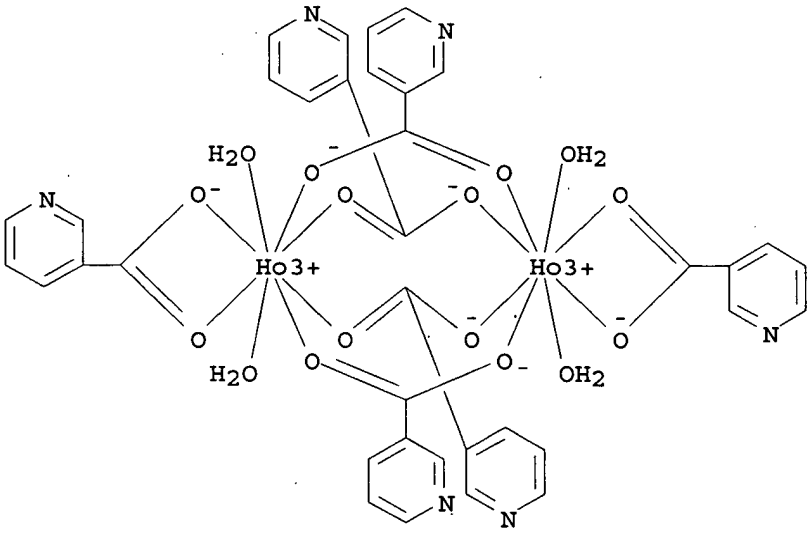


RN 85645-64-3 CAPLUS

CN Thulium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di- (9CI) (CA INDEX NAME)

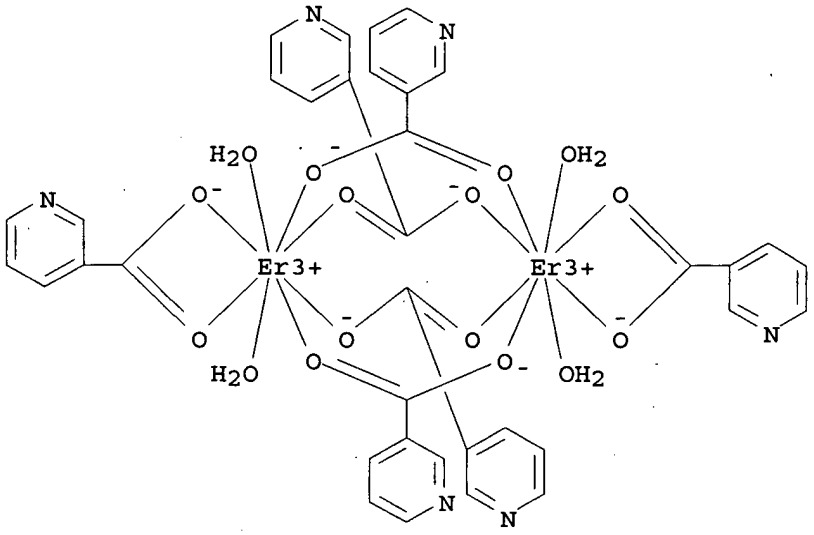


RN 95054-25-4 CAPLUS
CN Holmium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-, stereoisomer (9CI) (CA INDEX NAME)

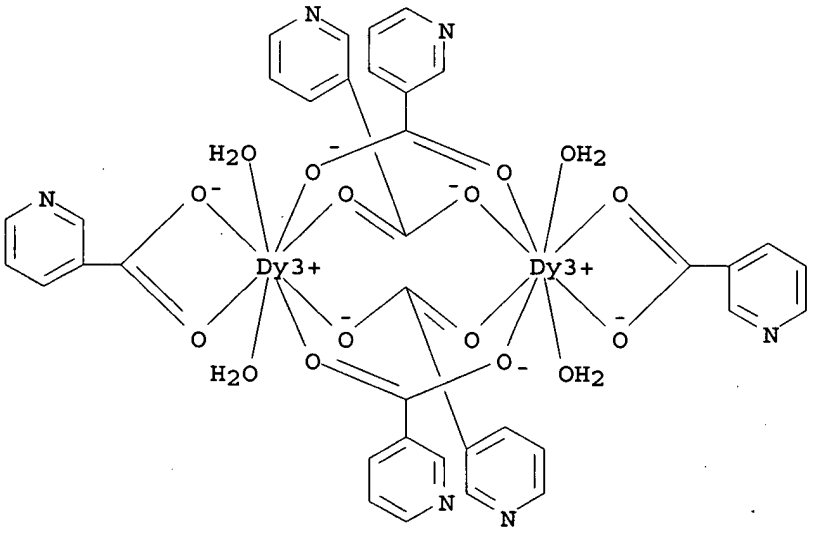


RN 96210-21-8 CAPLUS
CN Erbium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-

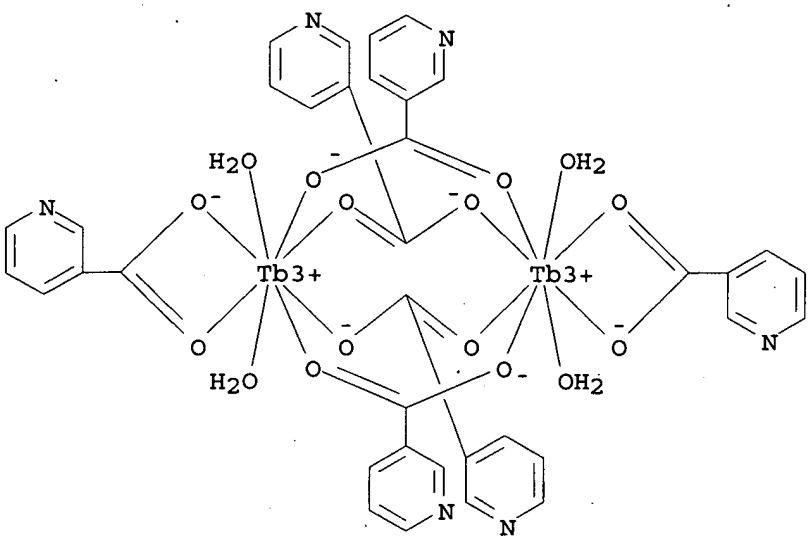
(9CI) (CA INDEX NAME)



RN 96210-22-9 CAPLUS
CN Dysprosium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-
(9CI) (CA INDEX NAME)



RN 96500-82-2 CAPLUS
CN Terbium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-
(9CI) (CA INDEX NAME)



RN 185215-51-4 CAPLUS
CN Europium, tetraaquatetrakis[.mu.-(3-pyridinecarboxylato-.kappa.O3:.kappa.O3')]bis(3-pyridinecarboxylato-.kappa.O3,.kappa.O3')di-, (Eu-Eu) (9CI) (CA INDEX NAME)

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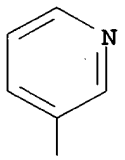

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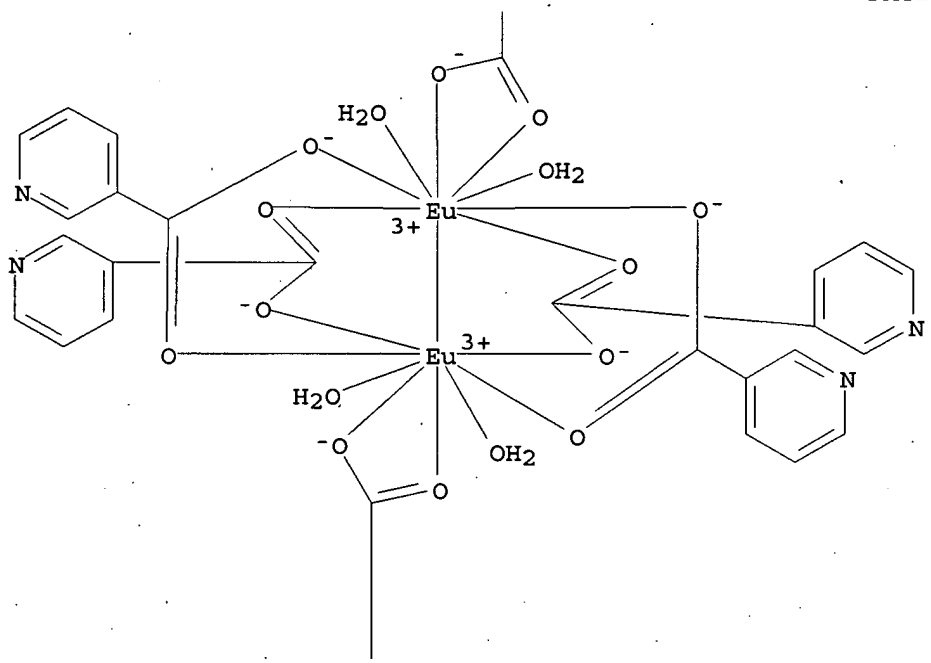

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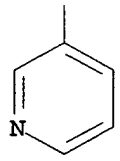

CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 65, 76, 77

ST crystal field lanthanide nicotinate; optical absorption **fluorescence** lanthanide nicotinate; Zeeman effect magnetic susceptibility lanthanide nicotinate; ESR g factor lanthanide nicotinate

IT Crystal field
Crystal field splitting
Ground state
Zero field splitting
g-factor
(crystal field and elec. and optical and magnetic properties for lanthanide nicotinates)

IT Energy level splitting
(doublet; crystal field and elec. and optical and magnetic properties for lanthanide nicotinates)

IT Rare earth metals, properties
RL: PRP (Properties)
(ions; crystal field and elec. and optical and magnetic properties for lanthanide nicotinates)
IT **36426-60-5 85645-64-3 95054-25-4 96210-21-8 96210-22-9 96500-82-2 185215-51-4**
RL: PRP (Properties)
(crystal field and elec. and optical and magnetic properties for lanthanide nicotinates)

L30 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:1004086 CAPLUS
DOCUMENT NUMBER: 124:104675
TITLE: Crystal structure and spectra of Ln(p-ABA)3bpy.cntdot.2H2O complexes
AUTHOR(S): Zheng, Xiao-Mei; Jin, Lin-Pei; Wang, Ming-Zhao; Zhang, Jia-Hua; Lu, Shao-Zhe
CORPORATE SOURCE: Dept. Chem., Beijing Normal Univ., Beijing, 100875, Peop. Rep. China
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1995), 16(7), 1007-11
CODEN: KTHPDM; ISSN: 0251-0790
PUBLISHER: Gaodeng Jiaoyu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Syntheses of Ln(p-ABA)3bpy.cntdot.2H2O (Ln = Nd, Eu, Yb; p-ABA = p-aminobenzoate; bpy = bipyridine) and their crystal structure, Raman and fluorescence spectra are reported. The crystal belongs to triclinic system with space group P.hivin.1. The coordination no. of the central atom is eight. There are three coordinated modes for **carboxylate** groups: unidentate, bidentate and bridged. Raman spectra of the complexes indicate that there are more than one coordinated modes for the **carboxylate** groups. This is in good agreement with the result of x-ray anal. The high resoln. spectra of Eu(p-ABA)3bpy.cntdot.2H2O show only one Eu(III) ion site in the complex. The symmetry for the Eu(III) site is C1.
IT **172917-92-9P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and crystal structure of)
RN 172917-92-9 CAPLUS
CN Ytterbium, bis[.mu.-(4-aminobenzoato-O:O')]bis(4-aminobenzoato-O)bis(4-aminobenzoato-O,O')diaquabis(2,2'-bipyridine-N,N')di-, dihydrate (9CI) (CA INDEX NAME)

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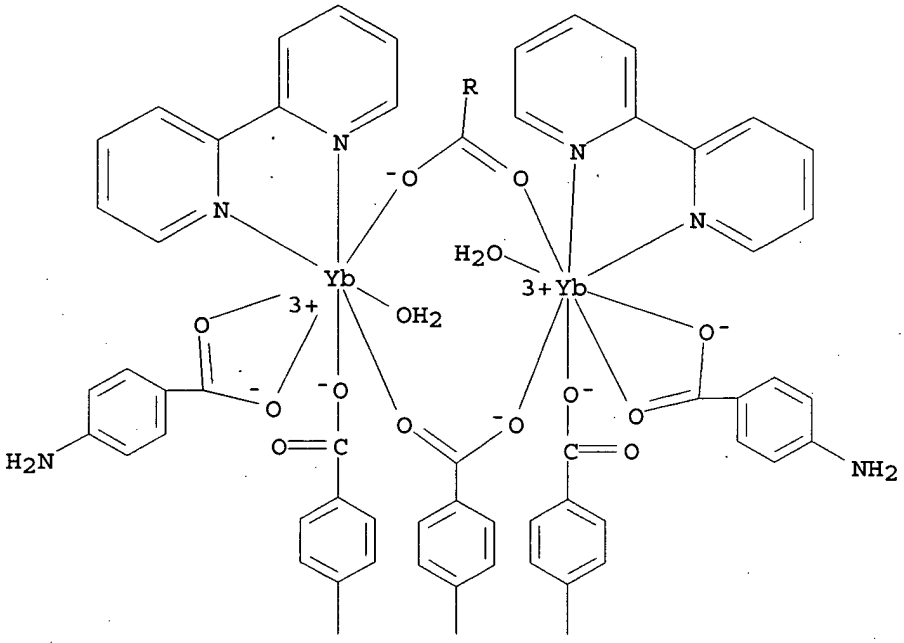

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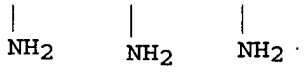

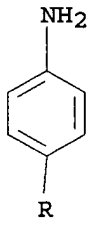

●2 H_2O

IT **172917-90-7P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn., crystal structure and Raman spectrum of)
RN 172917-90-7 CAPLUS
CN Neodymium, bis[.mu.-(4-aminobenzoato-O:O')]bis(4-aminobenzoato-O)bis(4-aminobenzoato-O,O')diaquabis(2,2'-bipyridine-N,N')di-, dihydrate (9CI)

KOROMA EIC1700